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April 1, 2003

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Renée Dana, Team Leader
Bureau of Land Management
Rock Springs Field Office
280 Highway 191 North
Rock Springs, Wyoming 82901

Dear Renée Dana:

I am writing on behalf of American Lands Alliance to comment on the Jack Morrow Hills Supplemental Draft Environmental Impact Statement and Coordinated Activity Plan/Draft Green River Resource Management Plan Amendment (Draft Plan). American Lands is a national conservation organization dedicated to the protection and recovery of North American native forest, grassland, desert and aquatic ecosystems; the preservation of biological diversity; the restoration of watershed integrity; and the promotion of environmental justice in connection with these goals.

Two years ago American Lands initiated a Sagebrush Sea Project to promote the protection and restoration of sagebrush habitat across the West. The enclosed Sagebrush Sea booklet is the centerpiece of our campaign, describing the geography, flora, fauna, uses and abuses of sagebrush landscapes in nine western states. Please note on pages 10-11 that the Sagebrush Sea covers the Jack Morrow Hills planning area, and includes important habitat for sage grouse and other sagebrush obligate species.

American Lands is concerned about the impacts of land uses proposed in the Draft Plan on the future viability of sage grouse in the planning area. Oil and gas development (including coalbed methane development) proposed for the area could render huge expanses of habitat unusable for sage grouse. Continued livestock grazing in the planning area will also threaten sage grouse nesting, brood rearing and winter habitats. The affects of these activities on sage grouse and the Sagebrush Sea are described in the enclosed booklet, and further detailed in enclosures by Braun (coalbed methane development,) and Webb and Salvo (grazing).

American Lands ALLIANCE

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SAGE-GROUSE HABITAT NEEDS AND MANAGEMENT ISSUES IN THE UPPER GREEN RIVER VALLEY OF WYOMING

By Clait E. Braun (Ph.D)

The author has published over 200 scientific papers (mostly on sage grouse). From 1973-1999 he directed sage grouse research and management activities for the Colorado Division of Wildlife

Sage Grouse Populations in North America:
With an intricate courtship display and a fascinating dedication to specific mating areas (called "leks"), the sage grouse is a bird admired by many. Once common throughout much of western North America and known as the "icon of the sagebrush steppe," populations of this sensitive species have plummeted across most of its range. It is estimated that in just the last fifty years, there has been a 50% decrease in total area occupied by sage grouse and up to an 80% decrease in total numbers in some areas. Sage grouse are now extinct in at least four states and one Canadian province where populations once existed. Six petitions recently have been filed to list all remaining populations under the federal Endangered Species Act.

Wyoming -- A Core Area for Sage Grouse Recovery:
Wyoming still has one of the strongest sage grouse populations in the world and will have a key role in deciding the fate of this magnificent species. In nearby states habitat loss and fragmentation has largely isolated populations, resulting in significant decreases in sage grouse numbers and local extinctions. Wyoming still has a mostly connected distribution, but if habitat fragmentation continues, the State's presently linked sage grouse population will begin to unravel. Maintaining large, unbroken expanses of effective sage grouse habitat throughout Wyoming thus should be a top priority for land managers.

The Upper Green River Valley and Sage Grouse:
This several million-acre area of predominantly public land (managed by the BLM) provides exceptional habitat for sage grouse. While present data are too limited to conclusively evaluate the overall health of the Upper Green's sage grouse populations and trends in the available habitat, there are worrisome signs. In recent years there has been a local decline in spring counts of sage grouse numbers and site inspections have indicated substantial disturbance in almost all habitat in the Valley. Besides the impacts from the current natural gas development boom, new housing, power line and road corridors, and livestock grazing have all affected sage grouse habitats. While studies are needed to confirm the extent and specifics of how these activities harm local populations, it is clear that continuing with present practices will result in habitat decline and reduced distribution and numbers of sage grouse throughout the Valley.

Life History and Critical Ecological Requirements for Healthy Sage Grouse Populations:
Sage grouse require specific sagebrush conditions, which are generally scattered over large expanses, in order to meet the hiding cover, food, and other needs necessary for survival. So sage grouse make seasonal migrations of 10-80 miles from winter to breeding and nesting areas and then to late brood rearing and fall use sites. Sage grouse winter use areas are especially critical for maintaining local populations and, to be effective, these areas must meet certain requirements for live sagebrush, leaf surface, canopy cover, and height. Also, leks and nearby nesting areas require no nearby disturbances during the spring/summer when they are in use.

(OVER)

Sage Grouse: The "Spotted Owl" of Sagebrush Sea

by Randy Webb, Ph.D. and Mark Salvo

Introduction

Grazing of domestic livestock has affected the entire range of the sage grouse, and with its associated activities, livestock production is probably the number one threat to sage grouse survival. The historic range of this large, charismatic bird closely conformed to the distribution of the sagebrush steppe, covering much of sixteen western states and three Canadian provinces. Between one and two million sage grouse (and perhaps as many as ten million) lived in the West when Lewis and Clark saw them in 1806, and huge flocks were still reported to darken the sky nearly a century later (Patterson 1952, Bent 1932). However, since 1900 the distribution of sage grouse has been shrinking dramatically, with complete extirpation of populations in Arizona, British Columbia, Kansas, Nebraska, New Mexico, and Oklahoma (Braun 1999).

The sage grouse is probably best known for its fascinating mating ritual. In the early spring, male grouse congregate at "leks," ancestral strutting grounds that are clear of large sagebrush and tall debris. To attract a hen, cocks strut, fan their tail feathers and swell their breasts to reveal bright yellow air sacs. The progression of wing movements and inflating and deflating air sacs elicits an acoustic "swish-swish-coo-oo-poink!"

Sage grouse are sagebrush obligates, deriving food, shelter and cover from the shrub. But the birds need more than sagebrush; wildflowers (forbs) and insects are essential food items. Tall grasses are also required for cover from predators. They prefer different habitats through the year. For example, ideal nesting habitat has a sagebrush overstory and a thick grass/forb understory (Gregg 1992, Wakkinen 1990, Roberson 1984, Autenrieth 1981, Braun et al. 1977). Both the over- and understory provide food, shelter from the wind and sun, and cover from ground predators and raptors (DeLong et al. 1995, Webb 1993a, Gregg 1992). As chicks grow, they follow their mothers to sagebrush stands and forb-rich areas, including wet meadows and riparian areas (Connelly 1999). Forbs and insects are required foods of sage grouse chicks. Good winter range will provide sage grouse with access to sagebrush under all snow conditions as the grouse eat only sagebrush during the winter. During the year sage grouse may range over one hundred miles of terrain to meet their seasonal needs (Hulet et al. 1984). Thus, sage grouse survival depends on vast expanses of healthy sagebrush habitat and functioning hydrologic systems.

The sagebrush shrub-steppe is a little-loved landscape and has received minimal conservation attention in the past. Sagebrush habitat has been fragmented, damaged, and destroyed by livestock production, as well as agricultural conversion, suburbanization, mining, and off-road vehicles, among other factors. Altogether, the decimation of sagebrush habitat has reduced the size of the sage grouse breeding population to an estimated 140,000 individuals in Canada and 11 western states (Braun 1999). (A separate

Trampling is possible on nests and eggs. However, slow-moving, dim-witted livestock are unlikely to present much of a threat to chicks or adults. A greater problem is the trampling of wet meadow areas needed by juveniles. Livestock trampling of such areas—often exacerbated by "development" of springs and seeps—typically transforms these naturally highly productive areas into little more than mud holes filled with cattle excrement (Braun, R. H. 1986; Low and Berlin 1984).

A common strategy used by public land agencies to protect stream areas is to move livestock use into uplands by fencing, herding, or placing "attractants" in the uplands, such as salt blocks or stock tanks. However, uplands are also sage grouse habitat, and upland mesic sites such as streams, wet meadows and springs provide important summer and fall habitat for the birds, especially in arid areas (Savage 1969, Oakleaf 1971, Autenreith, et al. 1982).

Livestock are also known to severely degrade cryptogamic crusts (Fleischner 1994), which are important in providing favorable sites for the germination of vascular plants (St. Clair, et al. 1984), regulating soil hydrology (Fleischner 1994), stabilizing soil against wind and water erosion, retaining soil moisture, and promoting equable soil temperature regimes (Belnap 1993, 1994; St. Clair and Johansen 1993; Kaltenecker 1997). Intact cryptogamic crusts prevent invasion by cheatgrass and similar species. These crusts can require 50 to 100 years to recover from livestock trampling (St. Clair and Johansen 1993).

Removal of Plants

Forbs and other understory plants are critical as food to sage grouse chicks, and as food for insects, which are key components of the chicks' diets during their early development. Even light grazing tends to remove preferred food plants of sage grouse, while heavy grazing can create barren spaces between sagebrush plants (Daubenmire 1942, p. 62). As the cryptogamic crust, and forb and grass understory is destroyed, sagebrush plants increase in size and abundance and canopy closure often occurs (Daubenmire 1942, p. 62). This can prevent re-establishment of the forb and grass understory, even after grazers have been removed. Also, many areas are so depleted of forbs that there is no seed source to recover the site, even if livestock grazing ceases.

Forbs and grasses near the nest provide shelter from wind and sun, and visual concealment from predators (Webb 1993a, 1993b). Livestock grazing directly harms sage grouse by removing sheltering plants near the nest (Webb 1993b). This is known to diminish both nesting success and chick survival (Klebenow 1969, Hein, et al. 1980, Autenrieth 1981, Call and Maser 1985, Wakkinen 1990, Crawford and Delong 1993, Gregg et al. 1994, Sveum 1995). Sage grouse avoid grazed shrub-steppe during the nesting season (NWEA 1999, p. 32 citing Schroeder in prep.)—one reason many grazed areas in Washington no longer support sage grouse (NWEA 1999).

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1998, Schroeder 1998). In many areas, large reservoirs have been created, frequently providing irrigation water for the production of livestock feed and fodder. This further removes and fragments grouse habitat. Throughout the Columbia River Basin and Snake River Plains, dryland farming, made economically viable by subsidized irrigation water delivery from dams, has resulted in the destruction of immense expanses of sage grouse habitat.

The infrastructure that ties rural and suburban areas to urban centers—networks of roads, powerlines, pipelines, etc.—also affects sage grouse, by directly destroying, degrading, and fragmenting habitat.

Mining, particularly strip mining, is another type of habitat conversion. Mining operations release a diversity of pollutants, create additional roads, and add traffic to existing roads.

Rangeland "Improvements"

Treatment of so-called "rangelands," (an anthropocentric term, as if their only proper use was for the ranging of livestock) is often a matter of killing or controlling sagebrush to increase the amount of grass for domestic cattle and sheep. "Improving" rangeland can entail the use of defoliants and other herbicides and pesticides, blading (bulldozing of sagebrush), chaining (dragging a heavy chain between two vehicles to mechanically remove sagebrush), and fire (Pechanec, et al. 1954). The Bureau of Land Management alone has "treated" (destroyed) sagebrush on over 1.8 million hectares (Miller and Eddleman 2000, sum of values in table 5, p. 20).

Often, sagebrush is removed to allow for the growing of crested wheatgrass (an exotic) for livestock forage (Drut 1994, p. 21). All studies of the impact of crested wheatgrass plantings on sage grouse show this activity to be detrimental (Rogers 1964; Klebenow 1970; Martin 1970; Pyrah 1970, 1971; Wallestad 1971, 1975a, 1975b, Braun, et al. 1977). The monocultural plantings usurp the place of native plants that sage grouse use for food, shelter, and concealment (Beck 1975). The alien grass also alters natural fire regimes. As one scientist stated, "Crested wheatgrass has no nutritive value to sage grouse…attracts few insects that can be used by sage grouse…[and provides] little cover value or structure" (Braun 2000a). The grass is too short to hide birds even when mature. Vulnerability to predation is exacerbated by typical straight row plantings, in which predators gain long lines of sight for spotting grouse. The time required for habitat recovery can be seven to thirty years or more (Braun 2000a). Although sage grouse occasionally use areas planted to crested wheatgrass as lekking grounds, this is attributable to the high site tenacity of this bird. (For example, sage grouse also lek on the airport runway in Jackson, Wyoming.) It is unlikely that sage grouse prefer crested wheatgrass for lekking or for any other need.

Juniper and Pinyon Pine Invasion

In many areas, native tree species have invaded former sagebrush shrub-steppe because of fire suppression and cattle grazing (Tisdale and Hironaka 1981). Juniper, in

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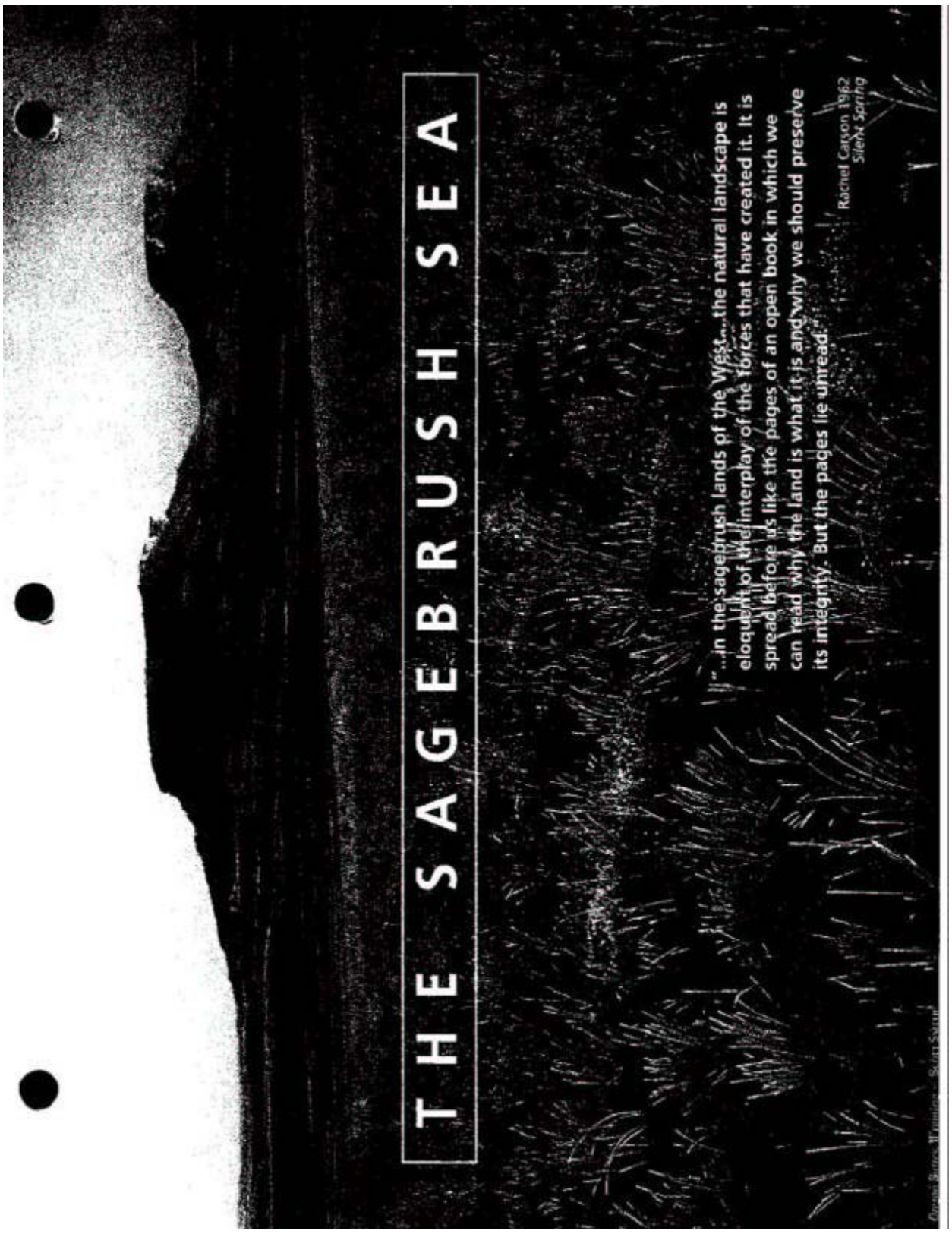
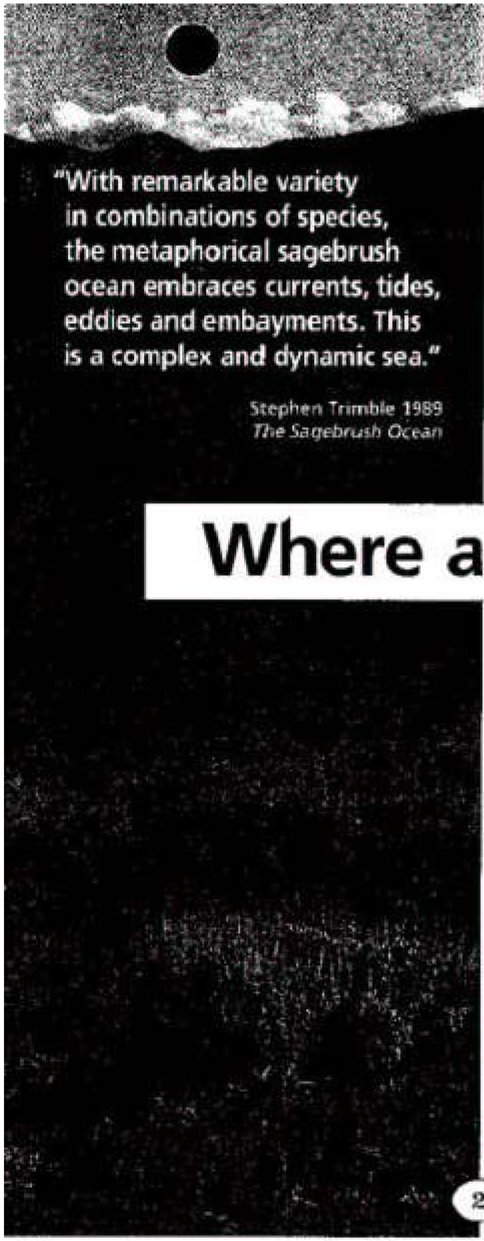
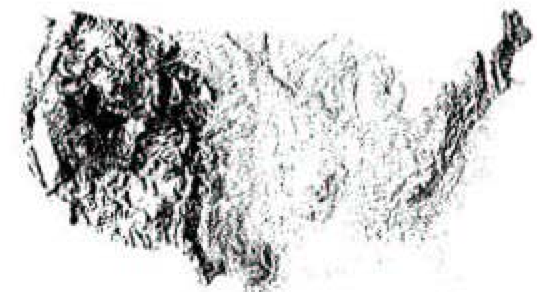

THE SAGEBRUSH SEA
"...in the sagebrush lands of the West...the natural landscape is eloquent of the interplay of the forces that have created it. It is spread before us like the pages of an open book in which we can read why the land is what it is and why we should preserve its integrity. But the pages lie unread."
Rachel Carson 1962
Silent Spring



"With remarkable variety in combinations of species, the metaphorical sagebrush ocean embraces currents, tides, eddies and embayments. This is a complex and dynamic sea."

Stephen Trimble 1989
The Sagebrush Ocean

The Sagebrush Sea covers approximately 150 million acres of the American West, one of the most extensive ecosystems in North America. The heart of the Sagebrush Sea is shaped by the Columbia River, the Great Basin and the Wyoming Basin. It extends from the east side of the Cascade Mountains in Washington and Oregon, across the Snake River Plain in Idaho, east to western and central Wyoming, southwestern Montana, and the western edge of the Dakota grasslands, and south into western Colorado, northern New Mexico and Arizona. The Sagebrush Sea includes northeastern California along the Oregon and Nevada border east of the Sierra Nevadas, northern and central Nevada south to the Mojave Desert and the high plateau country of Utah west of the Wasatch Range.



Where and What is the Sagebrush Sea?

The Sagebrush Sea is a landscape of dramatic contrasts and subtlety. While to some the dry, rocky hillsides and apparently endless bluffs of sage, juniper, piñon, mountain mahogany and bitterbrush appear monotonous and "barren," they teem with wildflowers, aromatic and flowering shrubs, birds and great variety of other animals. This is expansive country. The horizon extends for 360 degrees and the sky arches high over the cedar, mustard-yellow and sea-green slopes. Pronghorn race across huge grassy basins and bighorn sheep balance on steep cliff sides. There are lakes, rivers, streams, springs and wetlands, hot springs, volcanic rock formations and mountain ranges – some rising to over 9000 feet.

The watersheds and river basins of the Sagebrush Sea include the eastern portion of the Columbia Basin, with its major tributaries, the Yakima, Deschutes, John Day, Owyhee, Boise and Snake Rivers. Toward the eastern edge of the region flow the Colorado, the Green and Wind Rivers, the Missouri and some of its headwater tributaries. Through its southwestern basins flow the Humboldt, Pit, Truckee and Walker Rivers.

The Sagebrush Sea is high country – much of it over 4000 feet in elevation with mountains rising 5000 to 6000 feet or higher above the desert floor. It is basin and range country where long, steep ridges of volcanic uplift and fault-block mountains flank broad basins and valleys. The Saddle Mountains and Rattlesnake Hills north of the Columbia River, the Warner Mountains, Steens Mountain, Hart Mountain, Owyhees, Sheep Creek and Pueblo Mountains in southeastern Oregon and Idaho, the White Mountains and Bodie Hills of northern California, Nevada's Shoshone, Diamond and Ruby Mountains, Wyoming's Green Mountains and Bear River Range, the Absarokas and Big Horn Mountains, the Crazy Mountains in Montana, the San Juan Mountains and Uncompahgre Plateau in Colorado – these are some of the ranges that frame the basins of the Sagebrush Sea.

Much of the Sagebrush Sea is described as "high desert," with intensely hot summers but cold, snowy winters. While overwhelmingly dry, sagebrush country contains important wetlands – including the Malheur and Warner Lakes, Lake Abert, Mono Lake and the Great Salt Lake – as well as the remnants of many alkali and now dry ancient lakebeds. Within the Great Basin itself are many smaller closed basins

where streams flow from the mountains into valleys without any outlet to the ocean, contributing to the unique nature of this landscape.

The Sagebrush Sea includes portions of several ecoregions: what is known as the sagebrush steppe of the Columbia and Snake River basins – in the northern reaches of the region – the Great Basin sagebrush ecosystem to the south, and the grasslands of eastern Montana, the Wyoming Basin and western Dakotas. With dramatic changes in elevation and moisture, this is an incredibly varied landscape, home to numerous distinct plant communities, each of which supports a great diversity of flora and fauna.

"Remember that the yield of a hard country is a love deeper than a fat and easy land inspires, that throughout the arid West the Americans have found a secret treasure...a stern and desolate country, a high bare country, a country brimming with a beauty not to be found elsewhere."

Bernard DeVoto 1943
The Year of Decision: 1846

Black Rock Desert, Nevada — Kim Peterson

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Facts about the Sagebrush Sea

Historically, the Sagebrush Sea covered about 270 million acres. Today, because of land use, only 150 million acres remain and throughout much of this region exotic grasses and weeds now dominate native vegetation. Some sagebrush species have lost approximately 50 percent of their historic native habitat.[1]

Over 100 bird, 70 mammal and 23 reptile and amphibian species depend on the Sagebrush Sea ecosystem.[2] In the intermountain West, more than 50 percent of grassland and shrubland bird species show downward population trends.[3]

A number of the fastest growing counties in the interior West – the fastest growing region of the country – are in the Sagebrush Sea, in Colorado, Idaho, Nevada, Oregon, and Utah.[4] Partly because of this growth, recreational visits to BLM lands are expected to increase 5 percent annually.[5]

About 99 percent of basin big sagebrush in the Snake River Plain of Idaho has been converted to agriculture.[6]

Approximately 90 percent of the shrub-steppe grassland that makes up much of the Sagebrush Sea in Oregon and southwestern Washington has been lost.[7]

Weeds spread through Western federal lands at an estimated 4000 to 5000 acres per day,[8] contributing to the endangerment or extinction of 33 percent of at-risk plant species.[9]

Much of the Sagebrush Sea is publicly owned, managed by the Bureau of Land Management. The BLM manages more land than any other federal land management agency but with less funding per acre than any other. The current BLM operating budget amounts to $2.82 per acre per year.[10]

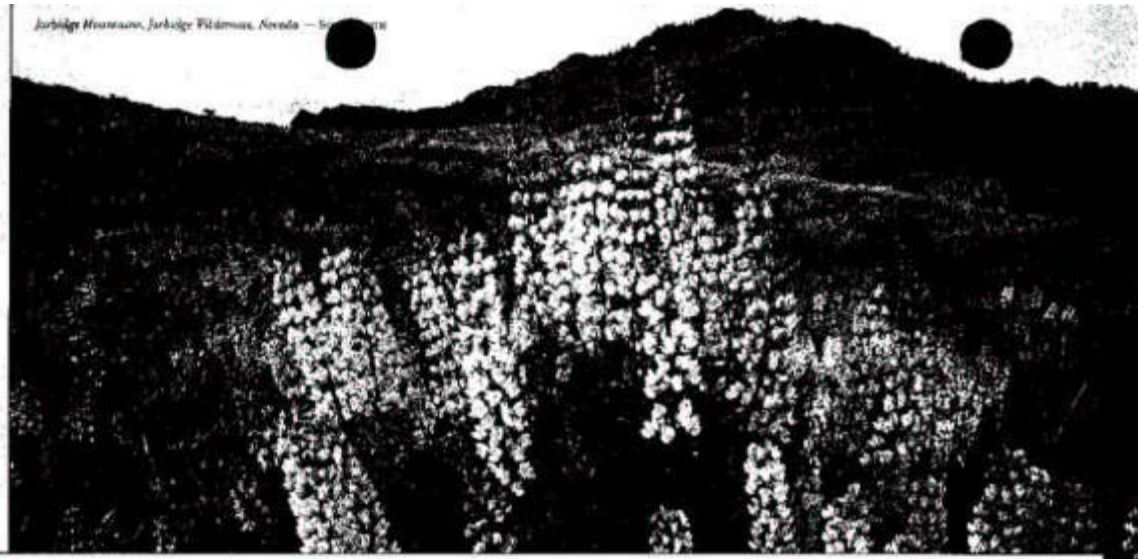
Of the approximately 150 million remaining acres of the Sagebrush Sea, about 2 million acres are protected wilderness – less than 2 percent of the region.

Great Basin Collared Lizard — Kim Peterson

Birds of the Sagebrush Sea

"Of the twenty-seven different orders [of birds] recognized by ornithologists, seventeen are represented by one or more species which regularly occur as residents, migrants or visitants in the Great Basin."

Fred A. Ryser, Jr. *1985*
Birds of the Great Basin



Flora and Fauna of the Sagebrush Sea

American avocet
American bittern
American coot
American crow
American dipper
American goldfinch
American kestrel
American robin
American white pelican
American wigeon
Ash-throated flycatcher
Bald eagle
Bank swallow
Barn swallow
Belted kingfisher
Black swift
Black tern
Black-billed magpie
Black-chinned hummingbird
Black-chinned sparrow
Black-crowned night-heron
Black-headed grosbeak
Black-necked stilt
Black-shouldered kite
Black-throated sparrow
Blue grosbeak
Blue grouse
Blue-gray gnatcatcher
Blue-winged teal
Bohemian waxwing
Brewer's blackbird
Brewer's sparrow
Broad-tailed hummingbird
Brown creeper
Brown pelican
Brown-headed cowbird
Bullock's oriole
Burrowing owl
Bushtit
California gull
California quail
Calliope hummingbird
Canada goose
Canvasback
Canyon wren
Caspian tern
Cassin's finch
Cattle egret
Cedar waxwing
Chipping sparrow
Cinnamon teal
Clark's nutcracker
Cliff swallow
Common loon
Common moorhen
Common nighthawk
Common poorwill
Common raven
Common snipe
Cooper's hawk
Dark-eyed junco
Double-crested cormorant

The Sagebrush Country is a highly varied and complex landscape, filled with a diversity of species that have adapted themselves to the region's variations in elevation, moisture and temperature. While "sagebrush" dominates visually, there are actually many different kinds of sagebrush, growing in communities with other shrubs, trees, grasses and wildflowers to create a rich mosaic of vegetation that support a host of animal and insect species.

The use and abuse of the Sagebrush Sea – the draining and diversion of its streams and wetlands, the conversion of sagebrush and native grasses to cropland and exotic forage plants, the invasion of weed and other non-native species, a century or more of intensive livestock grazing and human-imposed unnatural wildfire regimes along with human settlements and development – have upset the delicate balance of the landscape. The region's riparian areas and wetlands – some of which are home to fish species that live nowhere else – provide habitat for the greatest diversity of species. Yet these areas are among some of the most threatened in the region. Consequently, both rare and once common species are now imperiled. If current land uses continue without modification, the future of many Sagebrush Sea species will be uncertain and difficult to recover.

In these pages we note a sampling of flora and fauna that live in and depend on the Sagebrush Sea. These species include those found in the sagebrush and grass communities of the region, the area's wetlands, its high alpine reaches and its intermingled woodlands.

Historically, the Sagebrush Sea has been treated as a monotonous landscape. There is, however, an astonishing variety of sagebrush with numerous species and subspecies throughout the American West. What makes sagebrush so distinct is how finely adapted it is to the low and varied moisture conditions and ranging elevations of this region. Its soft grayish-green leaves remain green year round, providing a vital source of food for Sagebrush Sea wildlife.

At the very highest elevations that receive substantial

snowfall, grows *subalpine big sagebrush*. Lower down mountain slopes is *mountain big sagebrush*. At lower and drier elevations grow *Wyoming big sagebrush* and *basin big sagebrush*. Where the soils are thinner and still drier grow the smaller varieties of sagebrush – *black sagebrush*, *dwarf sagebrush* among them. One study of the Owyhee Canyonlands identified 36 sagebrush communities types – various species and subspecies of sagebrush and their grass and wildflower understories.

The mosaic of vegetation in the Sagebrush Sea provides food and shelter for many species of birds, small and large mammals, reptiles, amphibians and insects. Sagebrush itself is an essential food source – especially in winter – for sage grouse, pygmy rabbits, sagebrush vole, pronghorn, mule deer and elk. It also provides protective cover for young grouse, rabbits and fawns as well as for nests of sage grouse, sage sparrow, sage thrasher and Brewer's sparrow. The following are some of the sagebrush obligate species – without sagebrush habitat they could not survive.

Sage Grouse. The sage grouse is a striking and charismatic bird that derives its name, food and shelter from the sagebrush on which it depends. Slightly less than 2 feet size, both males and females are a mottled, brownish-gray. Males weigh up to six pounds; females half as much. White chest feathers and specialized head feathers distinguish cocks during the spring breeding season. Cocks have long black tail feathers with white tips, while female tail feathers are mottled black, brown, and white.


Sage Grouse – [illegible]

The sage grouse mating ritual is fascinating to observe, and often described as among the most stirring and colorful natural history pageants in the West. In early spring, at dawn and often at dusk, males congregate on "leks" – ancestral strutting grounds to which birds return year after year – in areas of scattered sagebrush. Leks vary in size from one to forty acres and may be up to fifty miles from wintering areas. To attract a hen, cocks strut, fan their tail feathers and swell their breasts to reveal bright yellow air sacs. Their wing movements, inflating and deflating air sacs make an acoustic "swish-swish-coo-oo-poink!" Cocks may strut throughout the night when the moon is bright.

Throughout the year, sage grouse prefer different seasonal habitats consisting of sagebrush, grasses, forbs, and other desert flora. Chicks feed on insects found in the grasses along with forbs which also provide essential nutrition for nesting hens. Summer range is a combination of sagebrush and forb-rich areas, including wet meadows and riparian areas. Sage grouse eat only sagebrush during the winter, so good winter range provides grouse access to sagebrush under all snow conditions. Consequently, sage grouse require vast expanses of healthy sagebrush habitat with a thriving mosaic of natural vegetation and functioning hydrologic systems.

The common species of sage grouse is known as the northern or greater sage grouse. A second species, of much smaller range and smaller physical size is the Gunnison sage grouse, now found only in southwestern Colorado and a small part of Utah.

"In time there were two as perfectly adjusted to their habitat as the sage. One was a mammal, the fleet and graceful pronghorn antelope. The other was a bird, the sage grouse – the 'cock of the plains' of Lewis and Clark."

Rachel Carson 1962
Silent Spring

Downy woodpecker
Dusky flycatcher
Eared grebe
Eastern kingbird
European starling
Evening grosbeak
Ferruginous hawk
Fox sparrow
Gadwall
Golden eagle
Grasshopper sparrow
Gray flycatcher
Gray vireo
Great blue heron
Great egret
Great horned owl
Greater sage grouse[2]
Green-backed heron
Green-tailed towhee
Green-winged teal
Gunnison sage grouse[2]
Hairy woodpecker
Hermit thrush
Horned Lark
House finch
House wren
Killdeer
Lark sparrow
Lazuli bunting
Least bittern
Lesser goldfinch
Lesser scaup
Lewis woodpecker
Lincoln's sparrow
Loggerhead shrike
Long-billed curlew
Long-eared owl
Mallard
Marsh wren
McGillivray's warbler
Mountain bluebird
Mountain chickadee
Mountain quail
Mourning dove
Nashville warbler
Northern flicker
Northern harrier
Northern oriole
Northern pintail
Northern pygmy owl
Northern rough-winged swallow
Northern shoveler
Orange-crowned warbler
Osprey
Peregrine falcon
Pied-billed grebe
Pine grosbeak
Pine siskin
Pinyon jay
Plain titmouse
Prairie falcon
Red crossbill
Red-breasted nuthatch
Redhead
Red-tailed hawk
Red-winged blackbird
Ring[illegible] gull
Rock dove
Rock wren
Rose-breasted grosbeak
Rosy finch
Rough-legged hawk
Ruby-crowned kinglet
Ruddy duck
Rufous hummingbird
Rufous-sided towhee
Sage sparrow
Sage thrasher
Sandhill crane
Savannah sparrow
Say's phoebe
Scott's oriole
Scrub jay
Sharp-shinned hawk
Sharp-tailed grouse
Short-eared owl
Snowy egret
Song sparrow
Sora
Spotted sandpiper
Steller's jay
Summer tanager
Swainson's hawk
Swainson's thrush
Three-toed woodpecker
Townsend's solitaire
Tree swallow
Tricolored blackbird
Trumpeter swan
Tundra swan
Turkey vulture
Veery
Vesper sparrow
Violet-green swallow
Virginia rail
Virginia's warbler
Water pipit
Western bluebird
Western flycatcher
Western grebe
Western kingbird
Western meadowlark
Western screech-owl
Western snowy plover[1]
Western tanager
Western wood-pewee
Western yellow-billed cuckoo[1]
White-crowned sparrow
White-faced ibis
White-headed woodpecker
White-throated swift
Willet
Willow flycatcher
Wilson's phalarope
Wilson's warbler
Wood duck
Yellow warbler
Yellow-bellied sapsucker
Yellow-billed cuckoo
Yellow-breasted chat
Yellow-headed blackbird

Big Sagebrush — Scott Sacra

Sagebrush Varieties

Sagebrush or *artemisia* (its genus) are the most widely distributed native shrubs in the western United States. Sagebrush originally covered nearly 270 million acres, ranging from sea level to nearly 12,000 feet and in places that receive only 8 inches of rain per year. Nearly all varieties of sagebrush are endemic to the western United States, growing nowhere else in the world."

Mountain, tall or big sagebrush grows at 4,500 – 10,000 ft., from CA to the Rocky Mountains, as far east as NE and from Canada to Mexico. Its crushed leaves have a minty, camphor-like odor.

Wyoming big sagebrush grows at 5,000 – 7,000 ft., in WY, MT, ID, CO and SD.

Basin big sagebrush grows at 1,500 – 10,600 ft., from MT south to NM and throughout all the Western states into ND. The crushed leaf of this subspecies has a pungent sharp odor.

Subalpine big sagebrush grows at 8,800 – 10,000 ft., in CO, north-central WY, southeastern ID and north-central UT.

Black sage grows at 4,500 – 9,500 ft., primarily in the Great Basin. The crushed leaf has a vivid odor unlike any other sagebrush.

Dwarf or low sagebrush grows at 3,000 – 12,200 ft., from southern CO to western MT, UT, ID, northern CA, OR and WA. Its leaves have a pleasantly minty odor.

Three-tip sage grows at 3,000 – 9,000 ft., in BC, WA, NV, northern UT and western MT. Its leaves have a mild and pleasant odor.

Owyhee or fuzzy sagebrush grows at 3,700 – 6,600 ft., in a few spots in ID, NV and OR.

Stiff sagebrush grows at 3,000 – 7,000 ft., in the Columbia River Basin of eastern WA, eastern OR, western ID and western MT.

Bud sagebrush grows at 3,000 – 8,000 ft., in MT, OR, CA, AZ, ID, UT and NM. A small sagebrush that grows only to about one foot high. It blooms in the spring with yellowish green flowers.

Pronghorn. A strictly North American mammal whose fossils date back to the Middle Miocene. Reputedly the fastest animal in the Western Hemisphere, pronghorn are distinguished by their two distinctive slightly curved horns with a single prong – both males and females have horns – and by their large white rump patch and two broad white bands across the throat. About 3 to 4 feet high, pronghorn can run as fast as 50 miles per hour, perhaps more. Pronghorn are found throughout the open plains and grasslands of the Sagebrush Sea in all of the region's states except Washington. Millions of pronghorn once ranged throughout the Sagebrush Sea. By 1915, excessive hunting, habitat destruction and competition with livestock reduced pronghorn numbers to an estimated 10,000 to 15,000. With the implementation of hunting restrictions and conservation measures, the pronghorn population has now grown to about one million.

Pronghorn — Idaho Department of Fish and Game

Sagebrush Lizard. A small lizard, about 2 to 2.5 inches long, with a gray or brown back usually with blotches or stripes on its sides. The males have blue belly patches, the females are sometimes orange around the neck when breeding. It prefers areas of open ground with scattered low sagebrush and is found among pinon and juniper trees.

Pygmy Rabbit. Considered the smallest North American rabbit, about 8 to 11 inches with 2 inch ears. The pygmy rabbit

Pygmy Rabbit — Washington Department of Fish and Wildlife

weighs from a half-pound to a pound. It feeds primarily on sagebrush and lives in dense sagebrush stands where the rabbit burrows. Often considered a Great Basin species, the pygmy rabbit is in fact found throughout the Sagebrush Sea, although populations in some states – especially Washington – are now imperiled.

Sagebrush Vole. About 4 to 4.5 inches with a tail just over an inch, weighing no more than 1.3 ounces, the sagebrush vole is ash-gray with a pale belly and feet. Of all voles, this vole lives in the driest places, amongst sagebrush which it eats along with surrounding green plants.

Sage Sparrow. About 5 to 6 inches long, gray with a single dark spot on its light breast, the sage sparrow lives in big sagebrush and feeds from the ground underneath. Sage sparrows build their nests in the sagebrush plants and tend to return to the same breeding grounds year after year.

Brewer's Sparrow. About 4.5 inches long and pale brown, the Brewer's sparrow is found throughout the Sagebrush Sea. It lives in big sagebrush, builds its nest in shrubs and feeds on the ground, eating insects and seeds.

Sage Thrasher. About 7 inches long, grayish brown with yellow eyes, the sage thrasher lives throughout most of the Sagebrush Sea, and builds its nest in or under shrubs, usually sagebrush. It feeds mainly on insects found underneath the brush.

Mammals of the Sagebrush Sea

Merriam's shrew
Spotted bat
Pallid bat
Big freetail bat
Kit fox
Little pocket mouse
Great Basin pocket mouse
Walker Pass pocket mouse
Dark Kangaroo Mouse
Pale Kangaroo Mouse
Great Basin kangaroo rat
Desert woodrat
Bushytail woodrat
Mountain vole
Sagebrush vole
Pygmy rabbit
Common pika
Water shrew
Vagrant shew
Townsend's pocket gopher
Northern pocket gopher
Western harvest mouse
Western jumping mouse
Little brown myotis (bat)
Big brown bat
Hoary bat
Spotted bat
Fringed myotis
Long-eared myotis
Yuma myotis
Long-legged myotis
Western pipistrel
Small-footed myotis
California myotis

Silver-haired bat
Townsend's big-eared bat
Ord's kangaroo rat
Deer mouse
Northern grasshopper mouse
House mouse
Canyon mouse
Pinon mouse
Wolverine
Least chipmunk
Yellow-pine chipmunk
White-tailed antelope squirrel
Long-tailed vole
Texas antelope squirrel
Washington ground squirrel†
Townsend's ground squirrel
Porcupine
Black-tailed jackrabbit
White-tailed jackrabbit
Mountain cottontail
Muskrat
Raccoon
Beaver
Badger
Striped skunk
Spotted skunk
Yellow-bellied marmot
Bobcat
Mountain lion
Coyote
California bighorn sheep†
Rocky Mountain bighorn sheep
Pronghorn
Mule deer/black-tailed deer
Rocky Mountain elk
White-tailed deer
Red fox
Ermine
Mink
River otter
Long-tailed weasel
Uinta ground squirrel
Richardson's ground squirrel
Belding's ground squirrel
Golden-mantled squirrel

Reptiles and Amphibians of the Sagebrush Sea

Sagebrush lizard
Black-collared lizard
Longnose leopard lizard
Short-horned lizard
Desert horned lizard
Side-blotched lizard
Great Basin collared lizard

Western fence lizard
Western terrestrial garter snake
Valley garter snake
Striped whipsnake
Ground snake
Racer
Rocky Mountain rubber boa
Longnose snake
Western rattlesnake/Great Basin rattlesnake
Great Basin gopher snake
Night snake
Great Basin spadefoot toad
Columbia spotted frog
Northern leopard frog
Western toad
Tiger salamander
Western skink
Tiger salamander
Common garter snake
Pine-gopher snake

Fish of the Sagebrush Sea

The Sagebrush Sea is home to numerous fish species, some of which live nowhere else. Due to limited water in the region their habitat is vulnerable and has been adversely affected by agriculture and development.

Lahontan Cutthroat Trout — Kathleen Sloan Milton

Alvord chub
Bluehead sucker
Bonytail
Borax Lake chub†
Brassy minnow
Bridgelip sucker
Bull trout†
Burbot
Chinook salmon†
Chiselmouth
Coho salmon†
Colorado pikeminnow†
Cui-ui†
Cutthroat trout
Emerald shiner
Fathead minnow
Flathead chub
Klamath Lake sculpin
Klamath largescale sucker
Lahontan cutthroat trout†
Lahontan redside trout
Largescale sucker
Leopard dace
Longnose sucker
Lost River sucker†
Malheur sculpin
Margined sculpin
Mottled sculpin
Mountain sucker
Mountain whitefish
Northern pikeminnow
Plains minnow
Rainbow trout
Redside shiner
Shortnose sucker†
Speckled dace
Steelhead†
Stonecat
Tahoe sucker
Torrent sculpin
Tui chub
Umatilla dace
Utah chub
Warner sucker†
Western silvery minnow
White sucker

Redband Trout — Richard Ostler

† Species, subspecies, or subpopulation listed as threatened or endangered under the Endangered Species Act.
‡ Species, subspecies, or subpopulation is candidate for federal threatened and endangered species list.

Wilderness and Wild & Scenic Rivers
"The Steens Mountain area encompasses some of the most ecologically diverse landscapes in the Basin and Range Ecoregion. Large portions of the area have barely been touched by development, and the area provides important habitat for a wide variety of wildlife ranging from migratory birds and big game to rare and endangered mammals and fish."
Thomas Quigley and Sylvia Arbelbide 1997
U.S. Forest Service Report

Protected Wilderness of the Sagebrush Sea

STATE	WILDERNESS AREA	YEAR	ACRES
COLORADO	Mesa Verde	1976	8100
	Gunnison Gorge	1999	17,700
	Black Ridge Canyons	2000	75,550
IDAHO	Craters of the Moon	1970	43,243
MONTANA	UL Bend	1976	20,819
	Medicine Lake	1979	31,467
	Red Rock Lakes	1976	32,350
NEVADA	Jarbidge Mountains	1964	113,167
	Alta Toquima	1989	38,000
	Arc Dome	1989	115,000
	Boundary Peak	1989	10,000
	Currant Mountain	1989	36,000
	East Humboldts	1989	36,900
	Jarbidge Addition	1989	48,500
	Mt. Rose	1989	28,000
	Quinn Canyon	1989	27,000
	Ruby Mountains	1989	90,000
	Table Mountain	1989	98,000
	Grant Range	1989	50,000
	Mt. Moriah	1989	82,000
	Santa Rosa	1989	31,000
	Black Rock Desert	2000	315,700
	Calico Mountains	2000	65,400
	East Fork High Rock Canyon	2000	52,800
	High Rock Canyon/Yellow Rock Canyon	2000	46,600
	High Rock Lake	2000	59,300
	Little High Rock	2000	48,700
	North Black Rock Range	2000	30,800
	North Jackson Mountains	2000	24,000
	Pahute Peak	2000	57,400
	South Jackson Mountains	2000	56,800
NORTH DAKOTA	Theodore Roosevelt	1978	29,920
OREGON	Steens Mountain	2000	174,744
SOUTH DAKOTA	Badlands	1976	64,144
WASHINGTON	Juniper Dunes	1984	7140
WYOMING	Encampment	1984	10,024
TOTAL			2,076,268

Protected Wild and Scenic Rivers of the Sagebrush Sea

Montana

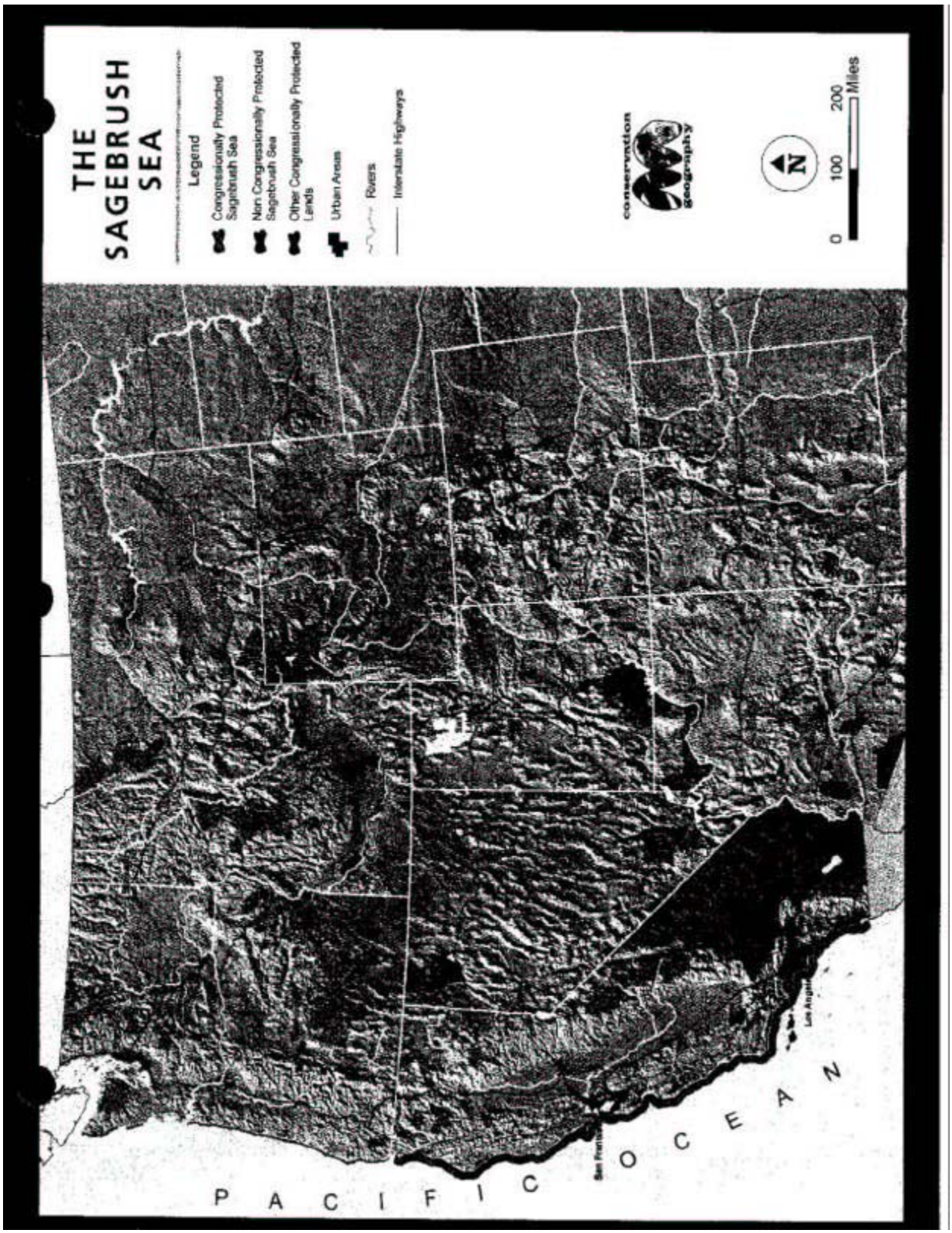
- Upper Missouri River

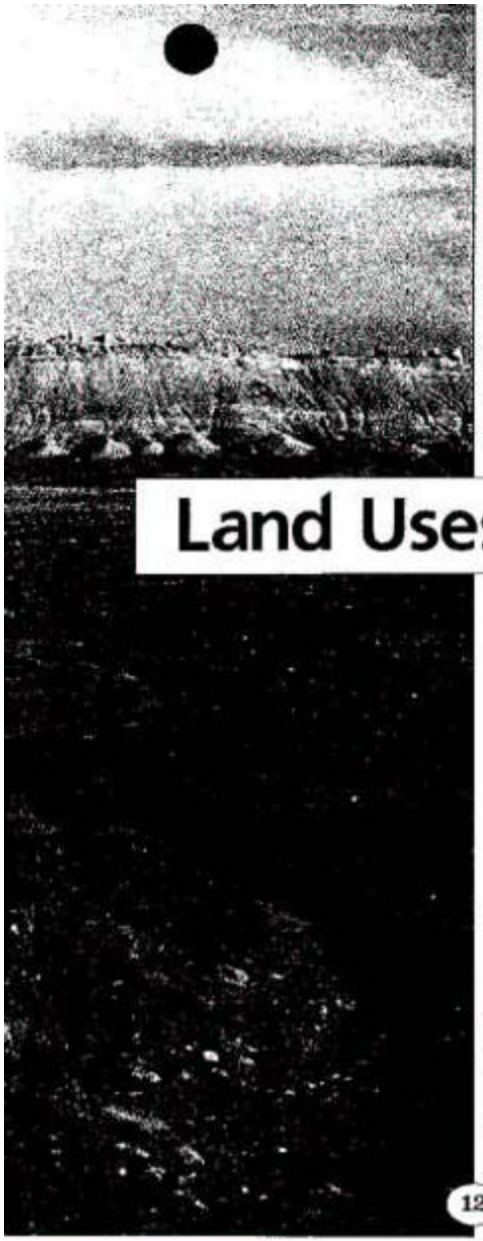
Oregon

- Crooked River
- Deschutes River
- Donner and Blitzen River
- John Day River
- Kiger Creek
- North Fork Crooked River
- North Fork Owyhee River
- Owyhee River
- South Fork John Day River
- West Little Owyhee River
- Wildhorse Creek

Upper Missouri Wild and Scenic River, Montana — Scott Smith

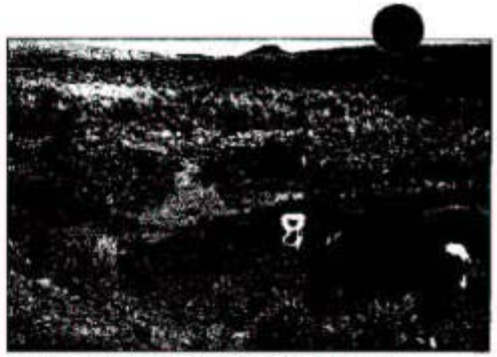

THE SAGEBRUSH SEA
Legend
The Sagebrush Sea
Historic Sage Grouse Range
Current Sage Grouse Range
N
0
100
200
Miles
PACIFIC OCEAN


THE SAGEBRUSH SEA
Legend
Congressionally Protected Sagebrush Sea
Non Congressionally Protected Sagebrush Sea
Other Congressionally Protected Lands
Urban Areas
Rivers
Interstate Highways
conservation geography
N
0 100 200 Miles
PACIFIC OCEAN



Land Uses and Threats to the Ecosystem

As the Sagebrush Sea became settled, vast tracts of sagebrush were converted to farm and rangeland and fragmented by human habitation and development. Throughout the Sagebrush Sea Americans have imposed crop fields, herds of livestock, irrigation ditches, roads, power lines, powerplants, mines, oil and gas extraction, towns and sprawling cities. Land management practices involving the planting of non-native species, burning and fire suppression have altered the natural patterns of vegetation throughout the region. The effects of agriculture, road building, residential, commercial and industrial development, along with the alteration of waterways and wetlands have taken their toll, so that the ecology of this vast landscape is now imperiled.



Livestock grazing along stream — Oregon Natural Desert Association

Although only 3 percent of American livestock producers[11] – or 22 percent of Western livestock producers[12] – participate in the public lands grazing program, the estimated loss of this program to the U.S. Treasury is as much as $500 million annually.[13]

Grazing

Beginning in the middle 19th century, a surge of settlement across the American West brought a rapid expansion of agricultural activity to the Sagebrush Sea, both farming and livestock grazing. As the non-native settlers imposed their patterns of civilization on the basins and ranges of the Sagebrush Sea, the natural vegetation began to disappear and with it, species like sage grouse, who relied on that landscape for food and shelter. Where the land has been heavily grazed, invasive non-natives like cheatgrass, star thistle, Russian thistle, knapweed and tumble mustard have taken over, in some places severely altering natural patterns of vegetation.

Grazing also reduces the availability of nutritious forbs – wildflowers and other small green plants – vital to wildlife. (A cow eats between 800 and 1000 pounds of forage each month). Livestock grazing ranks as the fourth leading cause of species endangerment in the country,[14] and the second leading cause of endangered plants.[15] Throughout the Sagebrush Sea, livestock grazing in riparian areas has badly degraded stream banks and riparian vegetation, negatively altering habitat for riverine and aquatic species. According to the BLM, over 68 percent of its public rangelands are in unsatisfactory condition due to grazing.[16]

Agriculture

Throughout the 20th century, the U.S. government promoted programs to reduce and eradicate sagebrush on both public and private lands. Sagebrush has been torn out mechanically, burnt and destroyed with chemical herbicides. Pesticides have been deployed to control native insects. In place of sagebrush, non-native forage grasses like crested wheat grass were planted. To protect homesteads, farm fields and pastures, a long regime of wildfire suppression was instituted which has altered vegetation patterns, often to the detriment of native flora and fauna. In some states, more than 90 percent of the original sagebrush-dominated rangeland has been converted to agricultural crops.

Roads, Fences, Powerlines and Off-Road Vehicles

Roads, fences and powerlines have fragmented wildlife habitat throughout the Sagebrush Sea. Fences and powerlines create obstacles and hazards for animals like pronghorn, and provide artificial perches for raptors that prey on sage grouse

Two-track dirt road — Scott Sutton

chicks and other vulnerable animals. In many places throughout the Sagebrush Sea, off-road vehicles have damaged wildlife habitat. Approximately half of BLM lands are open to unrestricted off-road vehicle use with another 44 percent designated for limited access and only 6 percent of BLM land closed to off-road vehicles. Human pressures on the Sagebrush Sea intensify near towns and cities in Colorado, Montana, Utah, Nevada, Idaho and Oregon, where some of the nation's fastest growing communities are located.

Oil and Gas Exploitation

The integrity of the Sagebrush Sea ecosystem in parts of Wyoming, Colorado, Utah, Montana, and the Dakotas are threatened by oil and gas extraction, in particular by the development of coalbed methane gas (CBM). The process used to extract coalbed methane depletes local aquifers, causing drinking water levels to drop and contamination of water sources. Gas wells, compressor stations, service roads and powerlines fragment wildlife habitat — including that of sage grouse — and disrupt migration corridors.

Wyoming is the epicenter of industrial gas development: 51,000 or more coalbed methane wells are planned for the Powder River Basin in the next decade, which will rob the local aquifer of over 1 billion gallons of water per day. As many as 70,000 methane wells may be drilled in the Powder

Coal bed methane gas drilling platform — Powder River Basin Resource Council

River Basin by 2060. Another 10,000-15,000 conventional gas wells are projected for southwestern Wyoming in less than 20 years. Further threatening the Sagebrush Sea, southwest Wyoming holds untapped CBM reserves estimated at 314 trillion cubic feet - nearly ten times the estimated reserves in the Powder River Basin. Pilot CBM projects in this area are underway.

Mining

Cyanide heap leach mining is a process commonly used to extract gold from ore mined in Great Basin region of the Sagebrush Sea. In this process, a cyanide solution is sprinkled over a huge heaps of mined ore so the cyanide will bind with the gold which is collected on plastic liners underneath the heaps. When the gold has been removed, the heaps,

Cyanide heap leach mine — Tom Myers

some weighing up to 5 million tons and covering hundreds of acres, are left to be managed as waste. Residual water and rainwater seep continually through the heaps which contain salt and heavy metals, including cyanide, selenium, arsenic, mercury, cobalt and nitrate, resulting in hazardous, toxic runoff.

There are more than 200 cyanide heaps in Nevada that will threaten water quality for decades. At the Wind Mountain Mine near Empire, Nevada, heaps contain 29,000 tons of salt, 12,000 tons of chloride, 2000 tons of nitrate and 12 tons of selenium. At the Candelaria Mine in Mineral County, Nevada, the concentration of 14 metals exceed state standards. For example, mercury exceeds standards by 35 times, selenium by 6 times, arsenic by 49 times and residual cyanide by 350 times.

Fire Suppression

The combination of skewed fire regimes and the spread of non-native vegetation has altered the natural patterns of vegetation in the Sagebrush Sea. The historic mosaic of sagebrush habitat has changed, native grasses have retreated and juniper trees have spread to areas where they were not previously. Some of these changes are due to climatic evolution, but most are the result of fire suppression, cultivation and development.

Fire suppression in turn has created dangerous conditions for wildfires in the Sagebrush Sea. In 1999 range fires burned 1.7 million acres in the Great Basin as flames raced across the landscape at over 40 miles per hour. Fires scorched 70 percent of Idaho's Big Desert in 2000. Scientific projections indicate that unless current land use and management practices are changed, the future health of the Sagebrush Sea's species will decline precipitously.

Weeds

Noxious weeds are estimated to spread at a rate of 4,600 acres per day on BLM lands. Disturbance to desert soils and native vegetation from grazing, fire, agriculture and development contributes significantly to the spread of weeds. Between 1985 and 1995, weeds increased on the public range from 4 million acres to 17 million acres. The worst invader may be cheatgrass, a flammable, but fire-loving non-native that has taken over nearly 25 million acres of public land in the Great Basin.

Juniper Control

The juniper needs less water than other trees, so it thrives in the low moisture conditions of the Sagebrush Sea's higher (but not too high) elevations. Juniper grows slowly and trees can live well over fifteen hundred years. Due to misunderstanding of their role and function in the ecosystem, junipers (and pinyon pine) have been actively destroyed – by burning, logging, chaining and spraying – to make way for forage grasses and other crops. Under natural conditions juniper remains in balance with other vegetation in the Sagebrush Sea, but fire suppression and livestock grazing have created conditions that scientists believe contribute to the spread of juniper. Restoration of natural fire regimes and elimination of both grazing and the conversion of sagebrush steppe for agriculture will help restore a balance of vegetation that will benefit all species in the Sagebrush Sea.

Wilderness Campaigns

The Federal Land Policy and Management Act of 1976 (FLPMA) directed the BLM to identify wilderness-quality lands among their holdings. These areas, called Wilderness Study Areas (WSAs), are managed under FLPMA and the Interim Management Policy for Lands under Wilderness Review until Congress chooses to designate them as Wilderness or release them from consideration. To date, Congress has designated very little BLM Wilderness in the Sagebrush Sea.

Conservation Efforts

California – California conservationists are drafting a citizens' inventory and wilderness proposal (to be completed in 2001) of unprotected areas that will likely include Tule Mountain, Skedaddle, Tunnison Mountain and Twin Peaks Wilderness Study Areas, and Shaffer Mountain, Shinn Mountain and Observation Peak not currently under any protective designation. All are within the Sagebrush Sea and open to threats from off-road vehicles, mining, grazing and possible juniper removal.

Colorado – A citizens' wilderness proposal has been developed and introduced as legislation by the Colorado Wilderness Network, a coalition led by five conservation groups and endorsed by 300 businesses and organizations. The bill proposes wilderness protection for seven BLM areas containing 195,450 acres of sagebrush habitat. The proposal includes areas in northwest Colorado around Dinosaur National Monument, Cold Springs Mountain and Vermilion Basin. Many of these areas are threatened by grazing, oil and gas development.

Smoke Creek, Fox Springs WSA, California Jim Ross

Missouri River/Bullwhacker Unit, Montana — Montana Wilderness Association

Idaho – Idaho conservationists are completing a citizens' inventory of BLM sagebrush wilderness-quality lands and beginning to draft legislation to designate BLM wilderness areas. The inventory has identified 4 million acres of Sagebrush Sea wildlands which include: the Big Lost, Owyhee-Bruneau Canyonlands, the Lavalands, Camas Trail-Bennet Hills, and the Island Ranges. To date the BLM has identified only 1.8 million acres in its wilderness survey. Of concern to conservationists is that lands identified by the BLM for wilderness designation include mostly steep-walled canyons and rocks, while important sagebrush habitats are left out. Currently, there is no designated BLM wilderness in Idaho.

Montana – Montana conservationists are in the initial stages of a citizens' BLM wilderness survey. Montana Sagebrush Sea wildlands include areas adjacent to the Missouri River, the river itself and the upland breaks which forms the corridor and core of a BLM sagebrush wilderness "complex". This region includes the Charles M. Russell National Wildlife Refuge, Burnt Lodge (BLM land adjacent to the refuge), Bullwhacker, Antelope Creek, Ervin Ridge, Chimney Bend, Woodhawk and Bull Creek. Also called the "Wild Missouri" region, a portion of which has been designated as the upper Missouri Breaks National Monument.

Nevada – A coalition of conservationists in Nevada are conducting an inventory of the state's Sagebrush Sea wilderness. Preliminary surveys have discovered many areas, including Pilot Peak and North Pequop, not designated as Wilderness Study Areas by the BLM. In 2000, the Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area designated 255,400 acres of wilderness in northern Nevada. Unprotected areas remain threatened by mining, grazing, off-road vehicles and other uses.

Oregon – A coalition of Oregon conservation groups is working to protect the ecological integrity and health of Oregon's sagebrush wilderness and high desert country. A focal point has been the campaign to protect the Steens Mountain and Alvord Desert area in southeastern Oregon. The Steens Mountain Cooperative Management and Protection Act passed in October 2000, withdrew 1.2 million acres from mining and geothermal development, put 425,000 acres off-limits to off-road vehicles and designated 174,744 acres as wilderness. Within the wilderness area, 99,859 acres were reserved as the first legislatively designated grazing-free wilderness. Other efforts include designating a Badlands Desert wilderness area; protecting key wildlife habitat between and around Hart Mountain National

Painted Hills, John Day Fossil Beds National Monument, Oregon — Scott Baxter

Deep Creek, Owyhee Canyonlands, extant original Wilderness, Idaho. — Ann Hess

Many local grassroots and regional groups are working to conserve and protect the Sagebrush Sea.

American Lands Alliance
www.americanlands.org 202/547-9400

Center for Biological Diversity
www.biologicaldiversity.org 520/623-5252

Land and Water Fund of the Rockies
www.lawfund.org 208/342-7024

National Public Lands Grazing Campaign
www.publiclandsranching.org 541/201-0053

Western Environmental Law Center
www.westernlaw.org 541/485-2471

Western Watersheds Project
www.westernwatersheds.org 208/788-2290

Wildlands Center for Preventing Roads
www.wildlandscpr.org 406/543-9551

CALIFORNIA

California Wilderness Coalition
www.calwild.org 530/758-0380

COLORADO

Center for Native Ecosystems
www.nativeecosystems.org 303/247-0998

Colorado Environmental Coalition
www.ourcolorado.org 970/243-0002

Great Old Broads for Wilderness
www.greatoldbroads.org 970/385-9577

Sinapu
www.sinapu.org 303/447-8655

IDAHO

Committee for Idaho's High Desert
www.cihd.org 208/429-1679

Idaho Conservation League
www.wildidaho.org 208/345-6933

Granite Peak, citizens proposed Wilderness, Utah – Scott [illegible]

Antelope Refuge, Beaty's Butte and Sheldon National Wildlife Refuge in Nevada; protecting the Owyhee Canyonlands; and Wild and Scenic River designation for a number of the region's streams.

Utah – The Utah Wilderness Coalition, which includes both local and national conservation groups, is leading the campaign to protect Utah's BLM wilderness lands. The coalition has drafted legislation which proposes 9.1 million acres of BLM land to be designated as wilderness and identifies wilderness quality lands in 11 different regions in Utah including the Bookcliffs, Greater Dinosaur, Great Basin, the Henry Mountains, and the San Rafael Swell. All of these areas contain sagebrush wilderness.

Washington – There are only about 400,000 acres of BLM land in Washington's Sagebrush Sea, with one small wilderness area, the Juniper Dunes. What little other

wildlands remain are mostly encompassed by the Hanford Reach National Monument, adjacent national wildlife refuge, and nearby Yakima Army Training Center.

Wyoming – A coalition of Wyoming conservation groups inventoried the state's BLM wildlands, and published their findings in "Wilderness at Risk – The Citizens' Wilderness Proposal for Wyoming BLM Lands." It proposes to protect 1.1 million acres of Wyoming BLM land as wilderness, including Sagebrush Sea in the Bighorn Basin, the Red Desert, Flaming Gorge Basin, Elk Mountain and Mill Creek in the Green River Basin, and parts of the Wind River, Platte River, and Powder River basins. Home to 50,000 pronghorn, rare desert elk, wild horses, sage grouse and raptors, these areas are threatened by coal bed methane development, off-road vehicle use, grazing and associated range developments. In a related campaign, over 100 conservation groups and local businesses drafted the Citizens' Red Desert Protection Alternative in response to the BLM's proposed management plan for the Jack Morrow Hills.

Sage Grouse Protection

An indicator species for the Sagebrush Sea, sage grouse have inhabited the western United States and southern Canada since the Pleistocene epoch. Described by Lewis and Clark in 1806, nineteenth century settlers and travelers reported huge flocks of sage grouse that darkened the sky. Sage grouse and the Sagebrush Sea are inseparable.

The historic range of sage grouse closely conformed to the distribution of short and tall sagebrush in what became sixteen Western states and three Canadian provinces. But since 1900 sage grouse populations have shrunk and they no longer occur in Arizona, British Columbia, Kansas, Nebraska, New Mexico, and Oklahoma. Sage grouse populations have declined as much as 45-80 percent over the past 20 years due to habitat destruction, degradation and fragmentation. The total sage grouse population, estimated at 140,000 individuals, represents only about eight percent of historic numbers.

American Lands and partners are working to restore sage grouse populations by raising public awareness of the Sagebrush Sea and recruiting voices inside and outside the conservation community to speak on its behalf. Our goal is to recover sage grouse populations to provide a huntable surplus. With the example of sage grouse, we hope to educate the public and decision-makers about sagebrush ecosystems and work toward improved management and protection for the grouse and other sagebrush obligate species.

Sage Grouse — Artist Dr. Jones

"The sage and the grouse seem made for each other. The original range of the bird coincided with the range of the sage, and as the sagelands have been reduced, so the populations of grouse have dwindled."

Rachel Carson 1962
Silent Spring

MONTANA

Montana Wilderness Association
www.wildmontana.org 406/443-7350

NEVADA

Friends of Nevada Wilderness
www.nevadawilderness.org 775/324-7667

Great Basin Mine Watch
www.greatbasinminewatch.org 775/348-1986

Nevada Wilderness Project
www.wildnevada.org 775/746-7850

NEW MEXICO

Forest Guardians
www.fguardians.org 505/988-9126

OREGON

Audubon Society of Portland
www.audubonportland.org 503/292-6855

Hells Canyon Preservation Council
www.hellscanyon.org 541/963-3950

Oregon Natural Desert Association
www.onda.org 503/525-0193

Oregon Chapter Sierra Club
www.oregon.sierraclub.org 503/238-0442

Oregon Trout
www.ortrout.org 503/222-9091

Predator Defense Institute
www.predatordefense.org 541/937-4261

UTAH

Southern Utah Wilderness Alliance
www.suwa.org 801/486-3161

WASHINGTON

Northwest Ecosystem Alliance
www.ecosystem.org 206/671-9950

WYOMING

Biodiversity Associates
www.biodiversityassociates.org 307/742-7978

Conservationists' effort to list the northern sage grouse under the Endangered Species Act is beginning to precipitate policy changes and increase funding for protection and restoration of sage grouse habitat. American Lands and partners have filed a petition to list the Gunnison sage grouse under the Endangered Species Act, and the U.S. Fish and Wildlife Service now describes the Gunnison as a candidate for ESA listing. Informational brochures and public presentations will help convey our message, rooting it deep in local communities to counter opposition to sage grouse conservation from those with vested interests in current land use and management practices that damage and degrade sage grouse habitat.

Campaign Against Industrial Recreation

Off road vehicles (ORVs) represent one of the fastest growing threats to the natural integrity of our public lands.

Conservation groups throughout the country are working to ensure that:

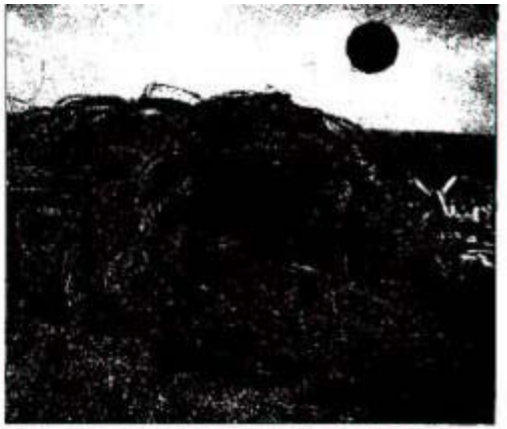
- ORVs are limited to existing routes, clearly marked as open to ORVs, where environmental damage can be minimized.
- ORVs are allowed only where land managers can demonstrate the ability to monitor their impact and enforce rules to prevent impairment of the landscape.
- ORVs be prohibited in legislatively or administratively proposed wilderness areas, roadless areas, and areas of critical environmental concern.

particularly those within the delicately balanced ecosystem of America's Sagebrush Sea. ORV use diminishes and destroys the qualities for which most Americans value these lands – clean air and water, protection of wildlife and their habitat and the beauty and tranquility of untrammeled wild places. The increased popularity of ORVs has coincided with technological advances that have enabled these machines to penetrate deeper into pristine backcountry areas. ORVs are particularly devastating to the fragile soils in the Sagebrush Sea and to high desert vegetation. ORVs erode soil in riparian areas which reduces water quality by increasing sedimentation in streams. Noisy ORVs disturb wildlife, cause air pollution and negatively effect human health. ORVs also disturb non-motorized recreation, including hunting, hiking, fishing and wildlife watching, so that a single ORV user creates an impact far greater, more lasting and damaging than other recreational users of the Sagebrush Sea.

Public Lands Livestock Grazing Permit Buyout

Since 1998, a growing number of conservation organizations have advocated for federal legislation to authorize and fund a program to allow livestock operators to relinquish their federal grazing permits to the government in exchange for compensation. The legislation would require permanent retirement of the permits, reallocate forage to wildlife and promote watershed restoration by allowing associated allotments to recover from the impacts of domestic livestock grazing. Operators participating in the program would continue to own their base properties, and could use their payments to restructure their ranch (including purchase more private grazing land) or retire. Such a program would benefit taxpayers who would no longer be subsidizing livestock grazing on retired allotments.

Permanent permit retirement is prohibited under current law which effectively requires Bureau of Land Management and Forest Service managers to transfer



Cattle bathed over from livestock-free West Hampton National Antelope Refuge, Oregon — Wilderness Volunteers

grazing permits to new grazers upon the resignation or retirement of the previous permittee. (In rare cases, permits are cancelled where allotments have been severely overgrazed, it is court ordered, or Congress so directs, such as within a national park). However, there are numerous examples where conservation organizations, livestock operators and federal managers have worked creatively within the bounds of current law to buyout permits. In some cases Congress has passed legislation that authorizes permit retirement on specially designated land. These examples demonstrate permit retirement to be a socially compassionate, policy efficient, politically pragmatic, and ecologically responsible way to end detrimental livestock grazing on public land.

Through the National Public Lands Grazing Campaign conservation groups are lobbying Congress to pass legislation to authorize and fund voluntary permit retirement. In the interim, to demonstrate its effectiveness, permittees, federal agencies, and conservationists are working – when private funding is available – to buyout a limited number of permits in wilderness areas, national parks and monuments.

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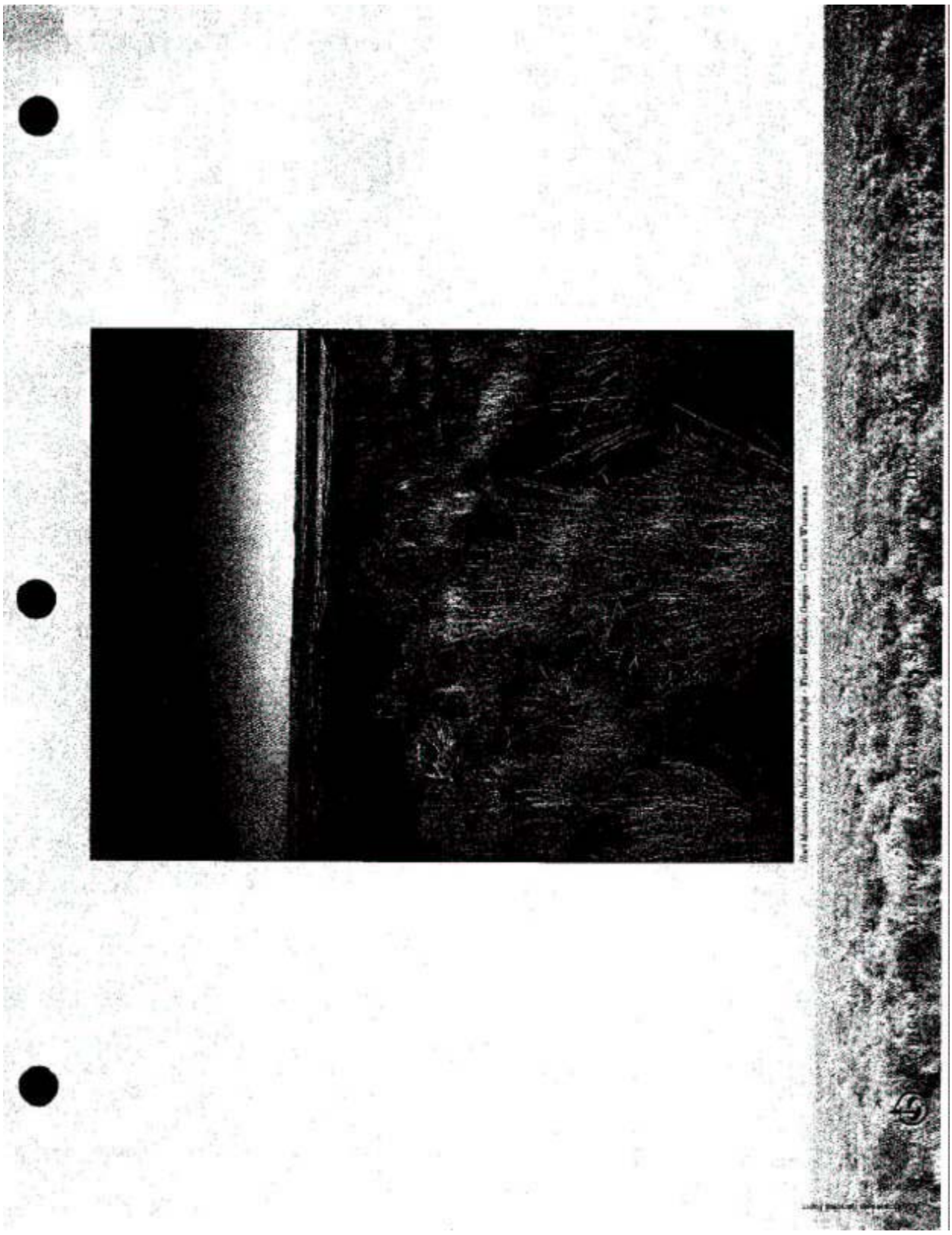

100,084

DAWN MALLOW
3121 Buffalo Speedway # 5404
Houston, TX 77098

April 10, 2003

Renee Dana, Project Leader
BLM Rock Springs Field Office
280 Highway 191 North
Rock Springs, WY 82901

Dear Project Leader Dana and Bureau of Land Management:

I would like to express my support for the Citizens' Wildlife and Wildlands Alternative for the Jack Morrow Hills area in Wyoming, and my opposition to the current Bureau of Land Management Plan for this area.

The current BLM plan would decimate and destroy wildlife. Pronghorn antelope, Red Desert elk, mountain lions, coyotes, golden eagles, ferruginous hawks, wild horses and over 350 other species of wildlife, some rare, would be threatened and destroyed by the BLM's plan for oil and gas development in the region.

The current BLM plan would decimate and destroy Native American sacred sites, such as Steamboat Mountain, also an ancient Native American buffalo hunt site, and other sites important to our indigenous peoples.

The current BLM plan would slowly but inexorably destroy the "wildness" of the Jack Morrow Hills Study Area, replacing it with roads, utility lines, drilling rigs, development, and people. The reason recreationists visit it now is precisely to experience that "wildness" that would be gone if the present BLM plan is implemented.

In contrast, the preferable Citizens' Wildlife and Wildlands Alternative would protect wildlife, protect wilderness, protect sacred areas, allow responsible sustainable hunting and grazing, and is favored by a diverse informed group of interested parties, including local businesses, local ranchers, local hunters, and local conservationists.

Thank you for your consideration of my viewpoint on this issue.

Sincerely,
Dawn Mallow
Dawn Mallow

100,088

April 14, 2003

Renee Dana
Project Leader
BLM Rock Springs Field Office
280 Highway 191 North
Rock Springs, WY 82901

Dear Ms. Dana,

I am a citizen of Fremont County in Wyoming, writing to support the Citizens' Wildlife and Wildlands Alternative for the Jack Morrow Hills Study Area. I understand that the BLM's environmental impact statement (EIS) for the Jack Morrow Hills is to include drilling for, and extraction of, oil and gas, plus extraction of minerals. The necessary infrastructure for removal and delivery of the oil, gas and minerals for as long as they last, would also be necessary. While I realize that the BLM is trying to strike a balance between use of the land and protection of the same land, I am afraid that this plan sounds more weighted to use than protection. Furthermore, such plans, if they are successfully promoted can result in the not so gradual, complete eroding away of the natural essance of these areas within a few years time. While the earth will remain, cluttered with industrial materials, noise and polution, the cause for any BLM involvement will be gone.

While I am a strong advocate for the protection and preservation of the relatively few wilderness areas that remain, simply as a place where the public can experiece nature and rejuvinate our beings, I found the most shocking aspect of the Jack Morrow Hills BLM plan to be the disrespectful way in which the Native American archeological sites are proposed to be treated. I do not see "environmental justice" in dismissing the Wind River Indian Reservation people's interests because of the supposed distance between the reservation and the Jack Morrow Hills. As has long been the history of the White population in their treatment of the Native Americans, this EIS seems to show that we feel that our (the White) cultural and historical interests are more important and more worthy of protection. It is my opinion, as someone who has worked in the reservation schools for the past three years, that it is of extreme importance to the American Indians of Wyoming that evidence of their particular history and spiritual practices be respected and maintained. Industrial activity within 100 feet of these sites shows little regard for their value let alone opportunity for their appreciation.

I realize that many individuals within the BLM may hope for suggestions that will improve the quality of stewardship of your agency. Often it is likely to be difficult to "hold the line" against current political forces and special interests. Thus, I am writing in hopes that the interests of citizens and their children and, children's children, may stand a chance. Hopefully, if enough of us take to time to write, we will prove to be a support to those within the BLM who would like to feel that they are able to do work meaningful to future generations.

2

If you do choose to respond to my letter, I hope that the response will specifically address the issues and questions that I have raised. Again, I also hope that the BLM will see fit to support the Citizens' Wildlife and Wildlands Alternative for the Jack Morrow Hills Study Area.

Thank you for your time and attention to reading this letter and in advance for any work you do to support the Alternative.

Respectfully submitted,

Martha Hipp

Martha Hipp, Ph.D.

100,095

Mail Comments to: Bureau of Land Management; Attn: Jack Morrow Hills CAP; Renee Dana, Project Manager; 280 Highway 191 North, Rock Springs, Wyoming 82901

Please Read Carefully

Comments, including names and street addresses of respondents, will be available for public review at the above address during regular business hours (7:45 a.m. to 4:15 p.m.), Monday through Friday, except holidays, and may be published as part of the EA, the EIS, or other related documents. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Name/Organization (required): BRUCE D. CAMPBELL

Mailing Address (required): 700 BUENA VISTA LANDER, WY **Zip Code** (required): 82520

Comments: ☐ land & water mgmt. ☐ water ☒ wild horses ☐ livestock grazing ☐ vegetation ☐ wildlife ☐ general ☐ heritage resources ☐ travel mgmt, access & realty ☐ recreation ☐ minerals & alternative energy ☐ visual resources ☐ special management areas ☐ air resources ☐ other

I SUPPORT A REDUCTION IN THE WILD HORSE HEAD. I FAVOR MULTIPLE USE WITH THE EXCLUSION OF COAL BED METHANE EXPLORATION AND DEVELOPMENT.

Signature: Bruce D. Campbell

Attach additional sheets as needed

WY 1278-4 (2/03)

100,106

4/16/03

Renee Dorn
Wyoming BLM
Rock Springs Field office
280 Highway 191 North
Rock Springs, WY 82901

I am writing regarding the DSEIS for the Jack Morrow Hills CAP. I have visited this truly unique area several times and read much of the Draft EIS.

Two problems I had with the analysis the BLM performed in the Draft EIS and which I request ~~yo~~ you address in the Final EIS are:

* There needs to be serious in depth analysis and quantification of what it would take and cost to compensate current leaseholders in sensitive parts of the Jack Morrow Hills Study Area. Are these leaseholders of the sort who have leases elsewhere in WY and so could be compensated through royalty payment credit or lease due credits elsewhere? Please answer this in Final EIS.

* The Adaptive Management program that the preferred Alternative imposes needs more definition and strict requirements. How will BLM make sure development #s stay below the estimated well pad #s provided in the DSEIS for analysis purposes? What mandate and authority will BLM use under the Adaptive Management program to prevent more development should monitoring indicate loss in steamboat elk population #s, failure in reclamation, water quality impacts etc? How will citizen oversight of Adaptive Man. program be ensured. Please answer all these questions with more detailed info in Final EIS.

Overall I do not support the BLM's preferred Alternative as it fails to provide sufficient protections to quiet, wildlife, and "wildness" that define the Red Desert. Please include and analyze the wildlife and wildlands Alternative (which I do support) in the Final EIS. Please mail me the Final and add me to your mailing list for all Jack Morrow info.

Sincerely,

Peter Aengst
305 N. Montana Ave
Bozeman, MT 59715

100,134

228 N. Middleton
Palatine, Illinois 60067
April 23, 2003

Ms.Renee Dana, Project Leader
BLM Rock Springs Field Office
280 Highway 191 North
Rock Springs, Wyoming 82901

re: Jack Morrow Hills Study Area

Dear Ms. Dana,

I am disappointed that you recently decided to give priority to oil and gas development in your draft management plan for the Jack Morrow Hills Study Area which allows several hundred new oil and gas wells to be drilled in sensitive wildlife habitat. It will endanger Steamboat Mountain, a Shoshone holy site, and an ancient Native American buffalo jump hunt site. The new roads, utility lines, and drilling rigs will destroy the wild character of this spectacular desert.

Please, instead, support the Citizens' Wildlife and Wildlands Alternative. Your management plan should reflect conservation and wildlife protection.

Sincerely,

Nancy Wedow

Nancy Wedow

100,137

Ms. Renee Norton
Bureau of Land Management
Rock Springs Field Office
280 Highway 191 North
Rock Springs, WY 82901

April 23, 2003

Dear Renee Dana

I am contacting you to express my concern about the present state and future of the Red Desert and the Upper Green River Basin in southwest Wyoming. I am particularly concerned about the Jack Morrow Hills and I believe the BLM is not managing the range of resources in this area, but instead is focused on the extraction of oil and gas.

I understand that this country, myself included, gobbles up fossil fuels and I understand the concern that we are dependent on foreign sources to feed our ravaging appetite. I also understand that the people of Pinedale, Kemmerer, Rock Springs, and certainly from farther away want jobs in the resource extraction business. What I want to focus on in this letter is a balance. There is a fine balance for many landscapes and the animals that visit, migrate, and call the Red Desert home. There is also a fine balance of life down wind in the Wind River Mountains. This landscape is showing signs of increasing acidity in the water cycle. I'm sure you are well aware of the natural history of the area you manage.

Lastly there is a balance that can be achieved in managing this fragile place. Please find it in your heart (get out to the wilder parts of the Jack Morrow Hills) to manage these lands with a balance of maintaining the wildness and developing the resource. The gas will be there for years to come. Please look at the cumulative impacts and take your time to further scar the landscape with roads, noise, and air pollution making sure you are not causing irreparable harm to the land, the migrations, the air, and the water. In this year of 2003, I think the BLM has the capacity and the knowledge to do a much better job in managing all of the Red Desert's resources not just the oil and gas lying under the surface.

I am very worried about the elk, antelope, sage grouse, and other animal populations in the area. I dread new roads scarring previously undisturbed roadless areas. We need to preserve our cultural heritage by protecting the Oregon and Pony Express Trails and areas significant to Native Americans. To preserve this extraordinary area, the BLM should manage different areas in different ways , not all oil and gas in all areas. The key is balance.

Thank you for taking time out of your busy schedule to hear my thoughts. I hope you have a chance to think about these ideas, even if they are contrary to your agenda. I support the Citizens' Wildlife and Woodlands Alternative for the Jack Morrow Hills Plan.

Sincerely, Georgie Stanley Georgie W Stanley

Georgie Stanley 1029 s. 200 w. Victor, ID 83455

1852 Guss Avenue
Akron, Ohio 44312
22 April 2003

100,140

Ms. Renee Dana, Project Leader
BLM Rock Springs Field Office
Rock Springs, Wyoming

Dear Ms. Dana.

The draft management plan for the Jack Morrow Hills Study Area would allow several hundred new oil and gas wells to be drilled in sensitive wildlife habitat and would endanger Steamboat Mountain, a Shoshone holy site, and an ancient Native American buffalo jump hunt site. If finalized, the plan would destroy the wild character of this spectacular desert. I oppose the draft plan in its current form.

The Citizens' Wildlife and Wildlands Alternative would ensure that oil and gas development do not destroy the natural beauty and ecological integrity of the Red Desert. This balanced plan would allow hunting and grazing to continue in a responsible way, while increasing protections for potential wilderness areas, Native American sacred areas, and pioneer trails. It would also ensure the long-term survival of the Red Desert elk herd, the pronghorn antelope herd, and other native wildlife.

I demand that the BLM develop a management plan that reflects the priorities of respecting Native American religious sites, conservation of natural areas, and wildlife protection. I am writing in support of the Citizens' Wildlife and Wildlands Alternative for the Jack Morrow Hills supplemental draft plan.

Yours sincerely,
Sheila Pearson

100,145

Guy Paul Calonge
325 Holly Ave
Worland, WY 82401
Phone: 307-347-3930
Email: pcalonge@wyoming.com

April 22, 2003

Renee Dana, Team Leader
280 HWY 191 North
Rock Springs, WY 82901

Dear Ms. Dana;

I am writing to comment on the Supplemental Draft EIS for the Jack Morrow Hills CAP [1610(930)]. I realize that you are and will be receiving a large volume of input on this subject, so I will try to keep this short and to the point; I will provide my background and interest in this area separately from my comments on the proposed alternatives to allow you to get right to my preferences if need be. These comments are strictly my own, and are in no way to be construed to reflect the views of the company I work for or any of the clients this company serves. I would also like to commend your team for the quality and clarity if the draft EIS; in my line of work I have occasion to have to wade through these things, and would like to say that this one is unusually lucid and easy to navigate. The maps and charts are outstanding. Thank you.

Personal background and interest:

I have a personal history with this area extending continuously over almost 29 years.

I am a 21 year resident of Wyoming, having lived in Jeffrey City, Riverton, and currently Worland. I have been employed in the seismic exploration industry since 1974. I first became acquainted with the Jack Marrow Hills area in 1974 on a sightseeing tour of the Red Desert and Oregon Buttes while on days off. Since that first visit, I have worked on several seismic prospects that touched on or were exclusively located in the planning area, the last being in the mid 1990s. I have hunted antelope and sage grouse in the area, and fished the Sweetwater along the Northern boundary. In the 70s and 80s I spent considerable time motorcycling on the many trails and roads in the area, and did some snowmobiling during the winter of 1984/1985. I have hiked the Honeycomb Buttes WSA. I routinely take out of state visitors on tours of the area, as there are few places in Wyoming that have the mix of very good access with such an unfenced "quality of solitude".

That this "quality of solitude" and the general unspoiled nature of this area can exist alongside the considerable amount of sheep and cattle grazing which has occurred over the last 100 years, the uranium and mineral exploration, and the

oil and gas exploration and development which has been done is wonderful. This area is a shining example that the multiple use approach to range and land management can be applied to maximize use of our public lands in the West without destroying the quality of the resource.

Alternative Preferences

In General:

My first thought after reading through the draft EIS is, with some exceptions, to favor Alternative 1. Alternative 2 is, with one exception, rather chilling, and would be totally unacceptable to me. It seems to have been written by the Biodiversity Conservation Alliance or the Sierra Club, and goes hard against the concept of multiple use. Alternative 3 has some good and some bad. The Preferred Alternative is an obvious attempt at compromise, and like all compromises will likely please no one.

Alternative 1 seems to allow the most diverse multiple use of the Jack Morrow Hills, and to provide the most access to the area. All of the other alternatives seem to me to put an excessive buffer area around riparian and wildlife areas, and to too strictly limit any case by case review of exceptional conditions. The one thing I really don't like in Alternative 1 is the lack of control over the wild horse population.

Alternative 2 seems excessively limiting. About the only provision that does not mirror the other alternatives that I agree with is the wild horse exclusion. This rare agreement with Alternative 2 is due to my own personal belief, based on my observations over 29 years, that the wild horse herds throughout the Red Desert are grossly over populated and are detrimental to the native wildlife. My own preference would hold the horse herds to the low end of the AML numbers, in hopes of restoring the antelope and sage grouse populations to the levels I saw in the '70s and early '80s. A more proactive predator management also would be in order, especially for all the ground nesting birds.

I also strongly disagree with the wildfire control provision of this alternative.

The provisions of this alternative, while a virtual deathblow to oil and gas or other mineral development, as well as too restrictive to grazing use, will not placate the environmental extremists. It seems to me that this alternative is contrary to the spirit and concept of the multiple land use that has succeeded so well in this area.

Alternative 3 allows too much wild horse entry into the area. I cannot see where the wild horse herd that often stays on the East side of the Honeycomb Buttes WSA has been anything but destructive. Wild Horses are very beautiful to see, but my own opinion is that large numbers of them keep the native wildlife off of water and desirable range, causing loss of population. Considering the outcry that accompanies any effort to control horse numbers, I am opposed to allowing a set AML for this area.

This alternative also seems excessive on riparian area buffer areas, though I agree with the enclosure provisions to a point, if considered on a case-by-case basis by professional range managers with input from effected parties (read ranchers, wildlife managers and mineral lessees). Considerations would include the effect of the current drought, and case by case condition of these areas.

The **Preferred Alternative** would be my second choice behind Alternative 1. I am not fully comfortable with some of the buffer footages, wild horse management provisions, or some of the travel management provisions.

In the first place, when the Surface Management maps were updated in the early 80s, a large number of existing trails were omitted. I understand that these were roads that someone wanted closed, but they still are there. Also, the snow removal policy needs to be flexable.

I also disagree with the sage grouse winter concentration areas provision, as in my opinion it does little to protect the resource while setting large areas off limits to reasonable usage. It is my strong belief that the decline in sage grouse numbers coincides with the end of the oil boom of the 70s and early 80s, when traffic through the affected areas by coyote and fox hunting workers declined to almost nothing. To back this up, I offer the example of the area North of Glenrock where there is a very healthy grouse population. The ranchers in this mostly private area aggressively control predators; sage grouse flourish. A more proactive predator management policy seems to be a better bet to both restore the grouse numbers and to protect mountain plover. What is really the best and most realistic way to protect ground-nesting birds?

The oil and gas provisions are not all I would like, as the somewhat arbitrary limits on drilling permits allowed might conflict with scientific reservoir management. I can give you a specific example of a year-delayed well permit in Campbell County that has drastically reduced the recoverable reserves in one field. There needs to be a process where exceptions to the well limits can be arrived at when solid engineering research dictates.

Conclusions

I do prefer Alternative 1, as it allows the most extensive multiple use of this area, and more closely follows the many years of successful management that allowed this area to be in the condition that has made it so attractive. My reasons are admittedly pretty subjective, but they are based on a longstanding personal relationship with the study area.

I think I could live with the Preferred Alternative, but there are issues concerning flexibility in implementing the provisions that should be addressed in the final EIS. This alternative would be my second choice.

I vehemently disagree with the proposal that came out in the paper last week to create a National Park or National Monument out of this area. The Park Service does not have enough money or staff to take care of what they already have, and do not really need any additional responsibilities until they do. The Bureau of Land Management has done a very good job of managing this area; this is why it has remained in such desirable condition.

The Jack Marrow Hills study area is one of the most successful examples of sustainable multiple use in the country. It proves that the concept is workable and the best model for the vast majority of public lands in the U.S. Please keep this area open to all.

Thank you very much for the opportunity to comment.

Sincerely,

Paul Calonge

100,156

P.O. Box 615
Lander, Wyoming 82520
April 30, 2003

Jack Morrow Hills CAP Team Leader
280 Highway 191 North
Rock Springs, Wyoming 82901

To Whom It May Concern:

Regarding public lands we are definitely in favor of multiple use. After reviewing the alternatives for the Jack Morrow Hills presented at a March 13, 2003 open house in Lander, we agree that the Preferred Alternative would be our choice of the options offered.

We oppose establishment of any more Wilderness Study Areas because it is too hard to have them released from that status.

Personally, we are most interested in recreational use of the area. We hunt, camp and "explore"--just enjoy looking around. In years past we rock hunted but are somewhat afraid to do that any more as we are concerned about what is legal and what is not. Nobody wants to get arrested for picking up an arrowhead! That anxiety applies to camping as well. In the good old days we could pull off the road in a nice place and spend some time enjoying it without fear of being cited for being there. Recently we purchased ATV's and look forward to seeing more of the Jack Morrow Hills and other areas via that method of transportation. We don't do much hiking but that certainly does not mean we don't enjoy the area or that we want to or should be restricted to non-motorized exploring. A major concern to us personally is that areas should be well marked when they are off limits and that maps, CLEARLY MARKED, should be readily available at all BLM offices for those wishing to use the area for recreational use, whether motorized or not.

A second concern is that livestock grazing be allowed, and at a rate that doesn't drive the ranchers out of business. The cattle industry is as much a part of our heritage as the natural resources, not to mention that most of us enjoy eating beef (and even mutton!) at least occasionally. The more land that is developed and placed into housing/subdivisions, the more critical it becomes that we be able to sustain food (livestock) production, not forcing our country to look to imports.

And let us not forget the tax base of the counties affected by the development or lack thereof of minerals. The services we all enjoy don't come free--the counties need the income.

Thank you for considering our comments.

Sincerely,

John L. "Louie" and Judy Gillette

MAY 2003
RECEIVED

George & Frances Alderson
112 Hilton Avenue
Baltimore, MD 21228

100,167

May 1, 2003

Renée Dana, Team Leader
BLM, Rock Springs Field Office
280 Highway 191 North
Rock Springs WY 82901

Dear Ms. Dana:

Please include this letter as a comment on the Jack Morrow Hills supplemental DEIS. I (George Alderson) am a westerner by origin and passed through the Rock Springs area many times while I was living in Utah. My wife and I share a concern for wise management of the public lands administered by BLM.

The Red Desert is one of those areas nationally known for scenic and ecological values, and it has been proposed for various forms of preservation over the span of a century. We are astonished to learn that BLM's draft EIS essentially makes oil and gas development the dominant use of the area, potentially leading to several hundred new wells being drilled in sensitive areas of wildlife habitat.

We urge BLM to adopt the "Citizens' Wildlife and Wildlands Alternative" as the preferred alternative. It reflects devoted efforts of citizen groups in the area and allows a healthy diversity of recreation activities, including ORVs where appropriate, hunting, livestock grazing, and public access to the public lands. We have the following specific comments:

Mineral Leasing: We favor a buy-out or trade of mineral leases in the area, and we ask BLM to prohibit all future oil, gas and mineral leasing in this plan area.

Wilderness Study Areas: Existing wilderness study areas (WSA) should be off-limits to any new roads or developments. We also ask BLM to designate new WSAs where citizens have identified lands that have wilderness characteristics as defined in sec. 603 of the Federal Land Policy & Management Act of 1976. One of the virtues of the BLM resource planning process is that new information and re-thinking of decisions made under severe time limitations in the original wilderness inventory can lead to better decisions in this current planning effort.

In summary, we believe the "Citizens' Wildlife and Wildlands Alternative" is an option that reflects a wise balance of uses, so the scenic values and ecological integrity of the Red Desert can be sustained in future centuries.

Sincerely,

George & Frances Alderson

George & Frances Alderson

100,183

DOUBLE EAGLE PETROLEUM COMPANY
777 OVERLAND TRAIL P. O. BOX 766 CASPER, WYOMING 82602

PHONE 307 / 237-9330
FAX 307 / 266-1823
www.dble.org

May 8, 2003

Renee Dana, Team Leader
Bureau of Land Management
Rock Springs Field Office
2801 Highway 191 North
Rock Springs, Wyoming 82901

RE: Jack Morrow Hills
Draft Environmental Impact Statement

Dear Ms. Dana:

I have reviewed the above referenced document and offer the following comments.

1) The EIS Study Area is 622,000 acres or roughly the size of the state of Rhode Island. Oil and gas development has occurred since the 1920's while wildlife numbers have increased dramatically. Much of this area was available to the public for free during the homestead years. However, very little was not homesteaded because it lacked adequate water and forage. This is not an area similar to our National Parks, recognized early as a treasure to be preserved for future generations. Only after industry and other uses have indicated increased interest in the area has the area gained such notoriety in the minds of special interest groups.

2) BLM should adopt Alternative #1 for lands available for oil and gas leasing. This will provide leasing in the Core Area while observing Wilderness Study Areas. Alternative #1 will also adhere to the President's desire to increase national security by decreasing dependence on foreign fuels and make the nation energy self sufficient.

3) BLM must honor existing leases within the Study Area. Furthermore, BLM must offer lands for lease within at least a one mile radius of these existing leases. It has already been determined through the Interior Board of Land Appeals that "the close proximity of lands unavailable for leasing prevents the development of existing leases". I strongly urge you to honor this verdict by the IBLA in Prima vs BLM (Docket #96-502 and #97-415).

4) BLM's suggestion of "staged mineral development" is unacceptable. The very workings of the

oil and gas industry prevents this philosophical utopia from occurring. Exploratory wells are generally drilled far apart by unaffiliated companies. Once a new field is discovered, development then occurs in a very small area. In most cases, a company may only own leases in a small portion of the Study Area. To limit activity to "stages" would harm a company from exercising its rights to develop its leasehold in a prudent manner. Funding for BLM to complete studies associated with "staged development" is not defined or insured and therefore should not be considered.

5) National Historic Trails viewshed stipulation should remain at 1/4 mile on either side or visual horizon, whichever is less. To go beyond this stipulation violates the Green River Resource Management Plan and also recent directives by the BLM State Office.

6) Only Wilderness Study Areas authorized under Section 603 of the Federal Land Policy and Management Act should remain and be recognized in the EIS. Identifying lands beyond this authorization violates a recent settlement decision by the United States Department of the Interior in the United States District Court, District of Utah.

7) Wildlife mitigation for species that are considered threatened but are also hunted by sportsmen should be analyzed with the primary mitigation method to abolish hunting before mitigation by other uses, including oil and gas development, are considered. The primary anticipated effect of hunting is the taking of wildlife, whereas the primary effect of oil and gas development is not to take wildlife.

8) The number of wells proposed in the Preferred Alternative is 200 wells over a 20 year period or an average of 10 wells per year. Assuming a success rate of 1 in 10 and an average disturbance of 3 acres per drillsite, oil and gas activity will temporarily disturb 30 acres per year and have a long term disturbance of 3 acres per year. All this occurring in a 622,000 acre Study Area is hardly significant. I would encourage you to increase the number of allowed wells to 500.

Thank you for the opportunity to comment on this document.

Very truly yours,

D. Steven Degenfelder
Vice President, Land

100,202

Renee Dana
Project Leader
BLM Rock Springs Office
280 Highway 191 North
Rock Springs, WY 82901

I would like to comment on the DEIS for the Jack Morrow Hills area of the Red Desert. To the best of my understanding, it seems as though development, likely oil and gas development, will be permitted throughout the entire area covered by the statement. I think that the 620,000 acres of the study area should be reserved for recreation and wildlife. Existing oil and gas leases, which were granted before a resource plan was in place, should still be honored, but elsewhere on BLM land. That is my personal opinion.

The oil and gas companies want to be able to extract in this area as much as sportsmen and women want it reserved for recreation. The pressures on you and your colleagues must be great. Issues such as land use tend to become emotionally charged, the sides often polarize, and BLM employees are in the middle. I know that as far apart as both sides seem on any issue, a compromise always exists. As I stated above, I would like to see the entire area reserved for recreation and wildlife. As it stands now in the DEIS, the oil and gas developers have access to the entire area for drilling. I do not think it is unrealistic to find a compromise on the issue. Reserve some for recreation and wildlife, and allow some responsible oil and gas development in the rest.

Another issue concerning the land use plan for the Jack Morrow Hills. It is my understanding that cultural resources related to European American history, such as the various overland trails which cross the area, are to receive a development buffer of 1/4 mile. Native American relics such as ruins or petroglyphs are only to get a 100-foot development buffer. I am sure there is a reason for this. I can speculate that Anglo cultural artifacts are few and can get a large buffer, and that Native artifacts are many, and if given a 1/4 mile radius, then the entire area would be covered by development buffers. If this is the case, it would seem as though there are a large numbers of Native American relics concentrated in the area, which would further my belief that it should be reserved for non-development use, such as recreation and wildlife. However the plan turns out for the area, this disparity should be re-examined, and/or clearly explained so as not to seem culturally unfair.

Thank you for receiving my comments on the issue at hand. I appreciate what you and all BLM employees do by accepting stewardship of our public lands.

Sincerely,

James Hurley Smith

P.O. Box 3672
Jackson, WY 83001
307.739.8661

100,220

Northern Arapaho Business Council
P.O. Box 396
Ft. Washakie, Wyoming 82514
Phone 332-6120 — 332-5006 — 307-856-3461

May 12, 2003

Ms. Renee Dana
Project Leader
BLM Rock Springs Field Office
280 Hwy 191 North
Rock Springs, Wyoming 82901

RE: Jack Morrow Hills Supplemental Draft Plan

This letter is regarding the recent draft Jack Morrow Hills Supplemental Draft Plan. The area in question is the 620,000 acre Jack Morrow Hills Study Area of Wyoming's Red Desert, which has been an important cultural landscape for the Arapaho Nation and our ancestors for thousands of years.

To date, we believe that the Bureau of Land Management (BLM) has produced a plan that fails to protect Native American holy sites and parts of the Jack Morrow Hills Study Area that were used by our ancestors for hunting, medicine gathering and spiritual purposes. We would like to make the following observations regarding the plan:

- The BLM has systematically provided for lesser protection for Native American cultural and spiritual sites than for other resources in the Red Desert or even with similar non-Indian cultural resources.
- The BLM fails to provide the necessary agency support for study and identification of these important sites, as it does for other resources.
- In the limited protections provided (100 ft. buffer zone), the BLM has failed to recognize the distinct differences in fragility, sacredness, and importance of Native American sites. Each type of site will require a varying degree of protection, instead of a one-size fits all approach. With Tribal consultation, the BLM should devise a ranking of protection strategies that will fit with the variety of sites that exist. Strong protection standards should be defined for site types, even for those yet unknown, so that at a minimum, disturbance is avoided prior to further analysis.
- The BLM fails to protect the view sheds of the Indian Gap Trail, the Boars Tusk, other respected features, and the composite of the sacred landscape of the Red Desert.
- Even though very limited in information (and recognizing that only 2% of the lands have been surveyed for cultural resources), the BLM report presents a picture of a landscape with a rich and phenomenal number of Native American traditional cultural and religious sites. To ensure the future protection of the sites known, as well as those yet

undiscovered, the most protective strategies to preventing land disturbance must be instituted, far beyond alternative #2.

- The agency's "preferred alternative" is unacceptable as a plan for protecting Native American sites, due to all the failures noted above. These include: insufficient buffer zones; VRM classifications that are weak and allow too much disturbance to the visual landscape; lack of agency resources for study and identification of these resources; poorly devised "adaptive management process" that fails to provide up-front protection; and failure to protect the overall landscape of the area.
- The Visual Resources Management (VRM) classifications should be increased for the entire area to classes I & II, which the BLM states, "would have beneficial effects on the visual quality of historic resources and Native American 'respected places'".
- Communication sites should be limited on high points, which the BLM acknowledges, "would help protect heritage resources from physical and visual impacts.
- The entire Jack Morrow Hills area should be closed to further oil & gas and mining exploration and development. Existing leases should be bought or not renewed when expired. Preventing these significant land disturbing activities throughout the area is the only way to ensure future protection for Native American sites currently known and those unidentified. Protecting the area's unique wildlife, ecology, historical and cultural wealth for the benefit of future generations—Indian and non-Indian alike—for out weighs the minor & short term mineral potential of the area. The BLM reports states that this "would have an overall beneficial impact on heritage resources by eliminating these surface disturbance activities."
- The agency should invest additional resources in study, consultation with Tribes and elders, identification of traditional native American sites and the development of special protective designations for a range of sites—so as to ensure the highest level of protection for these Native American cultural resources.
- Agency enforcement should be increased to ensure that poachers of artifacts are deterred or prosecuted.

Thank you for taking our thoughts into consideration regarding this timely and important issue. We look forward to working further with you on developing a plan that will provide meaningful protection for American Indian holy sites and areas of cultural importance to the Arapaho Nation within the Jack Morrow Hills Study Area.

Sincerely,

Carlton Underwood

Carlton Underwood, Co-Chairman
Northern Arapaho Business Council

RESOLUTION OF THE
NORTHERN ARAPAHO BUSINESS COUNCIL
WIND RIVER RESERVATION
ETHETE, WYOMING

RESOLUTION NO. 2003-8642

WHEREAS, the Northern Arapaho Business Council ("NABC") of the Northern Arapaho Tribe is the governing body duly authorized by the Northern Arapaho General Council to conduct business on behalf of the Tribe; and

WHEREAS, the Northern Arapaho Business Council considers the Jack Morrow Hills Study Area of the Red Desert as a valuable cultural landscape and an important part of our people's heritage.

WHEREAS, the Northern Arapaho Business Council deems the Jack Morrow Hills supplemental draft plan as inadequate in protecting American Indian holy sites, wildlife, scenery and resources of cultural importance to the Northern Arapaho Nation.

NOW, THEREFORE, BE IT RESOLVED, that the Northern Arapaho Business Council deems that the Bureau of Land Management's consultation with the Northern Arapaho Business Council and Tribal Elders as inadequate and must be improved with the Jack Morrow Hills planning process and other processes that will impact the Red Desert.

BE IT FURTHER RESOLVED, that the Northern Arapaho Business Council supports further protections for the Jack Morrow Hills Study Area and seeks to be more actively informed in this important planning process and in other planning process that my impact other parts of Wyoming's Red Desert.

BE IT FINALLY RESOLVED, that the Chairman or Co-Chairman is authorized and directed to sign this resolution on behalf of the Northern Arapaho Tribe.

CERTIFICATION

The undersigned, as Chairman of the Northern Arapaho Business Council, hereby certifies that the Northern Arapaho Business Council consists of six (6) members and that five (5) members were present constituting a quorum, at a duly called meeting of the Northern Arapaho Business Council held on May 6, 2003, and that the foregoing resolution was adopted by a vote of five (5) members FOR, zero (0) members AGAINST, Chairman voting, and that the foregoing resolution has not been rescinded or amended in any way.

DONE AT ETHETE, WYOMING, THIS 6th DAY OF JUNE, 2003.

Carlton Underwood, Co-Chairman
Northern Arapaho Business Council

ATTEST:

Susan Johnston, Secretary
Northern Arapaho Business Council

FREMONT COUNTY 1884
"Working to best serve You"

Treasurer of Fremont County, Wyoming
P.O. Box 465 450 North 2nd Street
Lander, Wyoming 82520

100,221

N. Scott Hornberger, Treasurer
James Massman, Deputy

Bureau of Land Management
Renee Dana, Team Leader
280 Highway 191 North
Rock Springs, WY 82901

Dear Renee:

First, I would like to encourage the BLM to consider that some of the groups claiming to represent the citizens of the State of Wyoming and the Counties of Fremont and Sweetwater are not funded by those they claim to represent. Although every citizen and group of the United States of America has a right to their opinion and input, the input from the people that live here and those of us who represent those people should be given due consideration when making decisions on how to manage and use the public lands surrounding our communities.

Second, as the elected Treasurer of Fremont County, it is my responsibility to report to the people of our county the impact of mineral production on the funding of roads, bridges, law enforcement, schools, libraries, recreation districts, etc. Shutting off all options to current and future production of oil and natural gas in the Jack Morrow Hills area is not good responsible planning. The tax base in the State of Wyoming and in Sweetwater and Fremont Counties, are made up of primarily mineral tax assessments. Government, schools, and recreation, as well as jobs and the local economy depend on mineral production for their livelihood. Options must remain open for responsible production and use of our public lands to provide revenue to pay for the services demanded by the citizens surrounding the public lands.

Third, the cultural experiences are not only those experienced by the American Indian. Many families migrated to the area as recent as 100 or 200 years ago. Hunting and exploring the area was done primarily by horseback and motor vehicle. As one gets older, it is important that the option of motor vehicle travel be available for those that cannot hike long distances over rugged terrain. Wilderness and primitive areas, and national parks make up in excess of 12% of the area of State of Wyoming. These lands that are "set aside" cover over 7 million acres that most people or their grandchildren could not explore in a lifetime. There is wilderness in Fremont, Sublette and Washakie counties where motorized activity and mineral extraction are prohibited. Why tie up more land?

Telephone 332-1105 857-3685 Fax 307-332-1129

Finally, grazing of livestock has been an important part of Wyoming's culture and economic viability for many years. The cattlemen and women that settled the west have survived because the public lands have been managed and used responsibly. I find it frustrating that most of the individuals who support the so called "citizens alternative" have little or no ties to those that settled this area. If the 'riches" available on our public lands were not allowed to be used, this area of the USA would not be the great place on earth that it is today.

I support the preferred alternative that allows for continued multiple use of the area known as the Jack Morrow Hills. Well managed multiple-use of our pubic lands should always be a viable option. The existing oil and gas leases should be reactivated so that production of the available minerals can begin as soon as possible. The preferred alternative adopts an Adaptive Management Strategy calling for the extractive activity to be aggressively monitored for the effects on the surrounding environment. Congress must adequately appropriate funds to the BLM so that proper monitoring can take place. However, industry's investment should not be jeopardized because of inadequate funding of the monitoring process.

As oil and gas leases expire and are due to be renewed, companies that have practiced sound environmental exploration and extraction should be given more opportunity to produce. Sound environmental practices should be rewarded with timely renewal, not bogged down with legal maneuvers, rules, and regulations that have no scientific basis.

Sincerely,

H. Scott Harnsberger
Fremont County Treasurer

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